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Growing Change: Local Foods Movements and the Emergence of Global Social Change

Annie Virnig

Advised by Paul Dosh, Macalester College Political Science

Local and Global Social Change (Independent Major) Honors Thesis

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Abstract

Local foods movements increasingly emerge as social movements with the power to challenge global norms. This paper develops around the question: can local foods movements create holistic sustainability at the global level? I begin by analyzing impetuses behind contemporary local foods movements. I then evaluate sustainability in three case studies – Auroville, India; the Twin Cities, United States; and Southern Africa. I ultimately argue that local foods movements can create sustainable change if they: (1) develop organically within their locale, (2) account for ecological, social, and economic implications of their actions, and (3) build translocal connections across multiple geographic scales.

Acknowledgements

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Preview of Central Research Question and Argument

Figure 1. Central research question and contributing chapter questions. Here I attempt to show how the questions posed by each chapter use my theoretical framework to address important components of my central research question. The three theories are the same as those introduced in the text, namely: 1) Geographical scalar perspectives, 2) Definitions of local foods movements in theory and practice, and 3) Living systems theory.

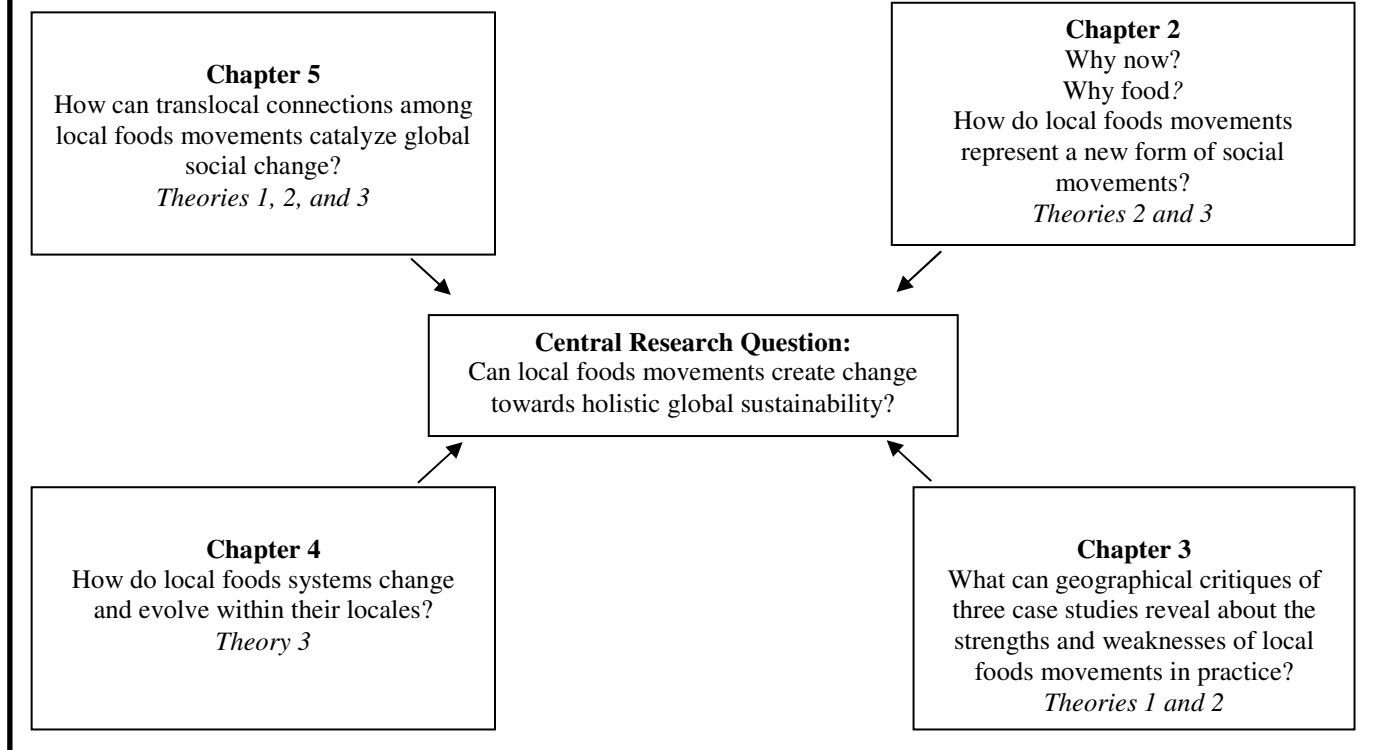
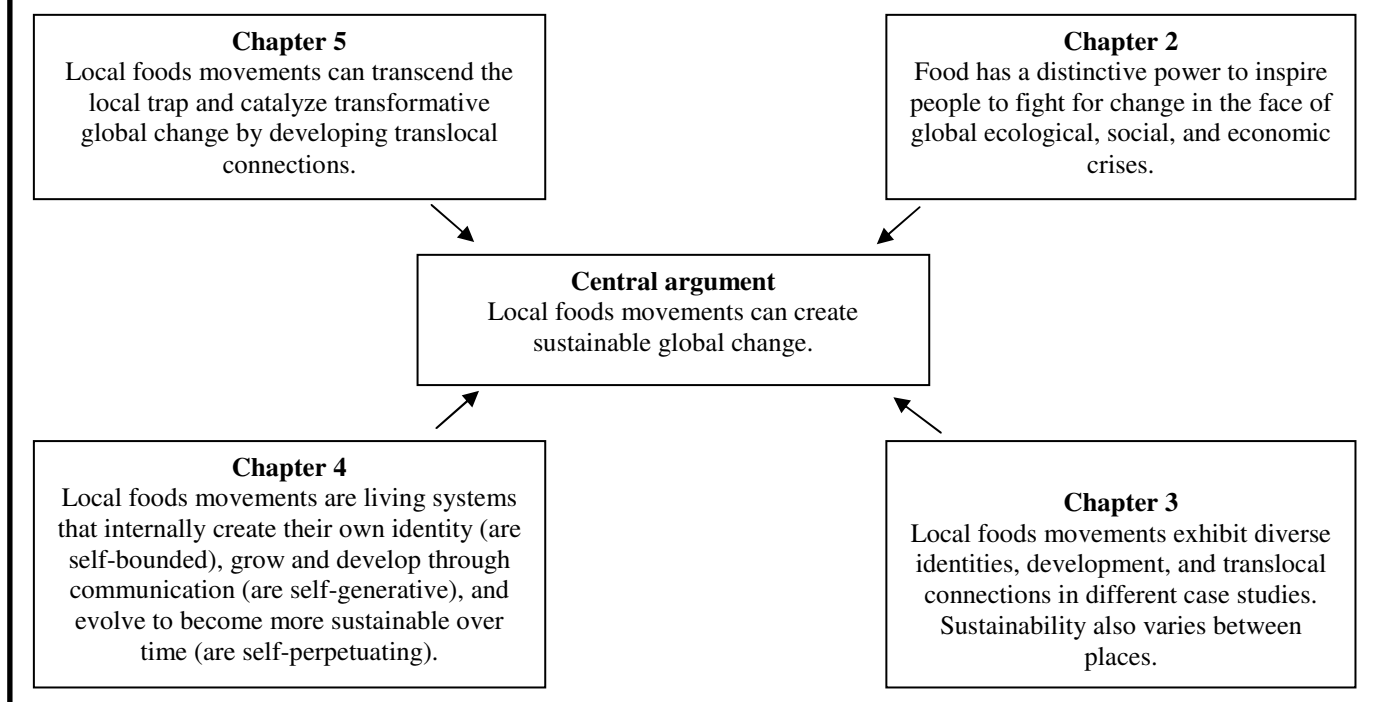


Figure 2. Central argument and contributing chapter arguments. This figure complements figure 1, illustrating how the contentions advanced in each chapter respond to my critical research questions and support my central argument.



Chapter One – Introduction

Think of this: as the sun sets in India, families gather on rooftops, tempted by freshly baked wheat chapattis and subji made from potatoes, okra, and cumin. Further southwest, diverse individuals gather in a community kitchen in inner-city Johannesburg, South Africa, to eat potjiekos stew cooked in a solar oven and made from carrots, cabbage, and tomatoes grown within their urban garden. On the other side of the world, fifteen children under the age of twelve – and two college students – chop cucumbers, boil corn, and bake sweet potato fries to nourish their neighborhood in the Midwestern United States. Each of these images at once reflects distinct sociocultural circumstances and evokes the centrality of food in our daily lives. Food nourishes our bodies, connects us to those around us, reflects our cultural practices, and inextricably ties us to our environment. Food, “like no other commodity, [. . .] touches our lives in so many ways” (Welsh & MacRae 1998, p. 241).

However in postindustrial cultures, food has become homogenous, distant, and cloaked in obscurity. As David Harvey (1990) observes, “The grapes that sit upon the supermarket shelves are mute. We cannot see the fingerprints of exploitation upon them or tell immediately what part of the world they are from” (p. 423).

In response to this increasing opacity surrounding the origins of our grapes, chapatti, potjiekos, and garden greens, emerging local foods movements are increasingly attempting to go beyond “the fetishism of the market and the commodity” by reconnecting people to their food (Harvey 1990, p. 423). Choosing between these local initiatives and global monopolies, however, forces consumers to confront a catch-22: while an industrialized mainstream agriculture externalizes social and ecological costs (Hendrickson & Heffernan 2002; Jarosz 2008; Pugliese 2001), the locally-grown kale bundled for sale at a farmers’ market has the potential to foster isolationism and elitism within geographical locales (Castree 2004). Such

contrasting criticisms and praise present within the literature reveal that: “the politics of food system localization can assume a complex flavor” (Hinrichs & Allen 2008, p. 321). Thus any study of local foods movements must be carefully framed to ensure that it does not unjustly laud or condemn, but rather takes into account the full social implications of sustainable foods movements.

Central Argument and Primary Research Question

In response to complexities introduced by the above discussion, this paper revolves around the central question: Can local foods movements facilitate social change and build a foundation for holistic sustainability at the global level?ⁱ Put differently, under what circumstances and in what context can local foods movements create social change towards more sustainable communities (*Figure 1*)? My central contention is that local foods movements can in fact create sustainable social change and serve as a model for similar grassroots social movements (*Figure 2*). However, this argument is contingent on a conceptual understanding of local foods movements that emphasizes their ability to: (1) develop naturally based on the unique conditions of each locality, (2) take into account the ecological, social, economic, and cultural implications of actions towards change, and (3) build translocal connections that enable receptivity to positive and negative feedback signals across a broad range of geographic scales. This argument is based on extensive theoretical framing that qualifies my approaches to local foods movements and assists me in navigating the complex ethical issues introduced above. In what follows, I introduce my three-part theoretical framing that stresses: (1) avoiding the purported “local trap” (Born & Purcell 2006, p. 195), (2) creating a definition of local foods movements, and (3) viewing sustainability through so-called “new paradigm” thought (Capra 2003, p. 6). By using such a rigorous theoretical framework, I hope to contribute needed reflexive analysis to the existing literature on local foods movements.

Theoretical Framing

Avoiding the local trap: using scalar approaches to theorize local foods movements

The emergence of “Eat Local” campaigns over the past ten years has prompted activists and scholars alike to conflate the local and sustainable practice as one and the same. However, as many scholars aptly point out, actions taking place at the local scale can be as unjust as those occurring within the global capitalist agricultural production system (Born & Purcell 2006; DuPuis & Goodman 2005; Hinrichs 2003). Grassroots movements, especially those arising in wealthier countries, can foster elitism, isolationism, and nativism by prioritizing locality above all other considerations. As Branden Born and Mark Purcell (2006) remark, “Local as an end, for its own sake, is merely nativism, a defensive localism that frequently is not allied with social justice goals” (p. 200). Thus strict focus on the local ultimately “conflates the scale of a food system with desired outcome. ... it confuses ends with means” (Born & Purcell 2006, p. 196), and leads to what Born and Purcell (2006) term “the local trap” (p. 196). Local, then, cannot become synonymous with the ultimate goal of any social movement, including local foods movements. Although eating locally and seasonally *does* inherently offer health benefits (DeLind 2006), the geographical literature suggests that social movements must be careful to define their end goals based on concrete outcomes rather than solely on the idea of locality. As Born and Purcell (2006) point out, “scale is not an end goal itself; it is a *strategy*” (emphasis added) (p. 196). The academic literature on social movements in general and on local foods movements in particular does not yet offer solutions to what has been termed the local trap (Born & Purcell 2006) or “unreflexive localism” (DuPuis & Goodman 2005, p. 362). Thus many scholars thus argue that scalar theorization of local foods movements provides a critical avenue for further research.

In this study of local foods movements I use a three-fold approach that attempts to transcend the local trap by: (1) investigating the end goals of local foods movements, (2) studying the role of place and scale in constructing sustainable social movements, and (3) evaluating translocality as a scalar means to both avoid isolationism and induce sustainable global social change. This theoretical approach leads me to pose several questions within my research. I ask: What are specific end goals that sustainable foods movements attempt to meet by focusing on the scalar strategy of locality? How do geographical theories of place and locality help to illustrate the conflation of local and sustainable as problematic? How can a translocal approach enable local foods movements to become appropriately reflexive and avoid the local trap? I attempt to answer these questions in Chapters 3, 4, and 5 as a means to qualify my central argument that local foods movements can serve as a viable approach to affect transformative global social change in food production systems.

Defining local foods movements: the “sustainable” alternative

In light of the existing criticism and support for local foods movements, it is important to establish a clear definition of the term in this paper. Local foods movements, as I characterize them here, emerge as distinctly different from movements towards food security, food self-sufficiency, and food sovereignty commonly referenced in the literature. All of these terms, however, overlap in some ways and are often used interchangeably. To contextualize this paper within the academic literature on food policy, I provide background on each term before proceeding to provide a definition of local foods movements.

Food security, for one, is commonly defined as the ability to access food and to not live in hunger or fear of starvation (Vogel & Smith 2002). Food insecurity, or the inability to access food, is typically documented as being caused by poverty. Many make the argument that food insecurity is caused by inequitable access to resources due to global political and economic

power structures rather than true shortages in the global food supply. Problems of food insecurity characterize both the third world and areas of poverty within the first world.

Food self-sufficiency and food sovereignty, in contrast, both materialize in the literature as approaches meant to respond to problems of food insecurity. Food self-sufficiency in particular takes on two connotations. The first, constructed by third world development organizations, is based on the thesis that the global economic market is fundamentally unreliable (Stage & Rekve 1998). In this view, third world countries with a food deficit that do not have the financial stability to participate in a volatile global market should become food self-sufficient. In other words, development programs should help them to institute programs to produce all food needed for their populace within national boundaries rather than preparing them to enter the global market. However, many argue that this oversimplifies the problem and often leads to inefficient international aid programs (Stage & Rekve 1998). The second food self-sufficiency thesis defines the same basic idea of developing a system that does not require any outside aid, support, or interaction to procure food. However this view typically is linked to various theories of sustainable living, including voluntary simplicity and the back-to-the-land movement (Merkel 2003), and defines a closed food system developed without external developmental aid that stresses personal or community autonomy.

Food sovereignty is closely tied to this second definition of food self-sufficiency. Coined by members of the international peasant farmers' coalition Via Campesina in 1996, food sovereignty advances that it is peoples' right to define their own food and agricultural systems. Via Campesina defines seven principles of food sovereignty: (1) food as a basic human right, (2) agrarian reform, (3) protecting natural resources, (4) reorganizing food trade, (5) ending the democratization of hunger, (6) social peace, and (7) democratic control (Windfuhr & Jonsen

2005). Simply, the grassroots food sovereignty movement emphasizes that individuals, communities, and nations should have the ability to choose not to be a part of a global agribusiness controlled food system. Proponents likewise emphasize that food should be seen as source of nutrition rather than a trade commodity. The food sovereignty movement has thus emerged as a way for small-scale producers in third world countries around the world to rally together to redefine their national food systems (Kopka 2008).

Local foods movements fall out within this complicated landscape of food policy and undoubtedly integrate issues raised by theses of food security, food self-sufficiency, and food sovereignty. The term local foods movements is used in this paper as a multifaceted concept that encompasses different approaches to food production and consumption based on a model of holistic sustainability. It is critical to note here that local foods movements can manifest at different scales, in diverse locales, and they can be motivated by different factors. In some localities, local foods movements may stem solely from a need to increase food security. Others may be oriented around a value on food self-sufficiency and voluntary simplicity (Merkel 2003). Many may also originate from the mindset articulated by members of Via Campesino and the food-sovereignty movement. Despite these differences, local foods movements all reject the status quo and share a commitment to cultivating sustainable food systems that reflect the unique characteristics of their locality. Simply, they share a common conceptual framework and can therefore be defined as a new form of social movement based on shared values.

Drawing on this background, I initially follow Gail Feenstra's (2002) definition of local foods movements as: "A collaborative effort to build more locally based, self-reliant food economies – one in which sustainable food production, processing, distribution and consumption is integrated to enhance the economic, environmental, and social health of a particular place" (p.

100). Feenstra's definition, however, raises the question: What does sustainability mean for local foods movements in practice?

I suggest that local foods movements, in order to affect holistic and sustainable changes in food production systems, must incorporate four central characteristics (Jarosz 2008). These include: (1) shorter food-miles between producers and consumers; (2) small farms engaging in holistic farming techniques; (3) local food purchasing venues such as co-operatives, farmers markets, and Community Supported Agriculture (CSA) programs; and (4) a commitment to the socioeconomic aspects of sustainable food production, distribution and consumption. I submit that each of these four elements is critical to creating sustainable social change (See also Pugliese 2001, p. 113); focusing on any single aspect to the exclusion of the others can cause local foods movements to fall victim to critiques of both theory and practice, as discussed in Chapter 3 of this paper.ⁱⁱ

The first necessary characteristic of sustainable local foods movements – shorter distance between food producers and consumers – minimizes transport distances, builds connections to the origins of food, and reduces the carbon footprint of food chains (Jarosz 2008). Many argue that shortened food chains enhance both ecological and economic sustainability within their localities (Feagan 2007; Feenstra 2002; Hendrickson & Heffernan 2002; Nabhan 2002; Pollan 2006; Smith & Mackinnon 2007). Simply, food transport distances are minimized in local foods systems, thereby decreasing oil consumption and regulating ecological impact.

This argument seems to provide some of the most straightforward evidence in support of local foods systems. However, Matthew Mariola (2008) adds complexity to the debate, pointing out that the idea of unequivocal ecological benefit is not always true. He identifies three situations which require more thought: (1) local food systems may encompass fewer total miles,

but they also require *more* vehicles traveling on *more* roads, (2) each food item only accounts for a fraction of the total energy expended during transport, therefore the bulk transport characteristic of mainstream food production may be more efficient, and (3) local food consumption may entail long trips to visit farms themselves (Mariola 2008). Thus, it cannot be uniformly stated that local foods systems unfailingly reduce carbon emissions. Nevertheless, the positive effects of a shortened food chain do not simply reflect a decrease in food-miles (Feagan 2007), as discussed below.

Asa Sundkvist and others (2005) make an additional argument in favor of shortened food chains, saying: “large distance, both geographically and institutionally, impedes the flow of information in the food system and blocks ecological feedback along the whole chain from extraction to consumer decisions” (p. 227). Simply, global food chains enable ecological, social, and economic impacts of industrial food production to be externalized along the chain of production. Local food chains, in contrast, mean that: “social interactions facilitate feedback that allows farmers to be responsive to consumer demands” and to be more synchronized with the ecological, economic, and social constraints of their locale (Hunt 2007, p. 63). Shorter food distances thus facilitate ecological, social, and economic feedback loops that can increase food system sustain ability. However, as can be seen from the contentions regarding both the benefits and consequences of shortened food chains introduced above, local food cannot be labeled as incontrovertibly sustainable or unsustainable. Thus truly sustainable local foods movements cannot be defined or evaluated them based solely on a decreased distance between farm and fork.

The second attribute of sustainable local foods systems I draw attention to is a thriving network of food venues that market locally produced foods as part of a vibrant rural-urban exchange (Jarosz 2008). These can include food cooperatives, farmers markets, CSA programs,

community gardens, and roadside stands. According to several scholars, access to locally grown food can build community and facilitate social interactions between producers and consumers. Hendrickson and Heffernan (2002), for one, argue that local food venues develop the “interconnectedness of people through the production and consumption of food” (p. 362). Numerous studies have likewise shown that the increased human connection offered by such venues and the relationships formed between farmers and customers, as well as between customers themselves, are one of the primary reasons for their success (Hunt 2007; Jarosz 2008; Ostrom 2006). Additionally, Carol Goland and Sarah Bauer (2004) report that farmers producing for local markets tend to retain more diversity in their crops.

The availability of locally produced food, however, does not necessarily reflect the sustainability of the farms themselves. Thus the presence of venues that sell locally produced food alone do not guarantee a holistic local foods movement – just as emphasis placed solely on decreased food distances cannot be said to unequivocally indicate holistic sustainability.

A third important feature of sustainable foods movements is the small size of farms and their commitment to sustainable, holistic agricultural practices that positively influence the nearby environment and community. Such farms often follow organic agricultural principles that aim “to create integrated human, environmentally and economically sustainable agricultural systems” (Lampkin et al. 1999, p. 1). Organic farmers use no chemical fertilizers or pesticides and try to reduce their dependence on external products. Instead, they use natural resources available on the farm – compost, mulch, or different types of vetch – to supplement plant nutrition and control pests. These alternative farms often try to distance themselves from the global market and the detrimental social, economic, and environmental implications of mainstream agricultural production. Jarosz (2008) notes that “AFNs [Alternative Food

Networks] are increasingly adopting on-farm vertically integrated structures that involves the farm and the farm household directly in distribution and retail,” rather than operating through “brokers, wholesalers, corporations, processors, or supermarkets” (p. 233).

Yet simple organic certification does not guarantee farms are engaging in socially sustainable practices or refusing to be complicit in mainstream agricultural practices. Organic codification initiated by the United States Department of Agriculture in 2002 led the idea of organic as a complex system incorporating ecological, social, spiritual, and economic characteristics to be replaced by one highlighting ecological inputs alone. Codification thus resulted in the concept and practice of organic agriculture to be “grafted onto the knowledge base of otherwise conventional agronomy” (Buttel 1993, p. 32). While codification facilitated the rise of organics within mainstream food production and consumption, it nonetheless pushed more holistic sustainable farming practices to the margins (Goodman & Goodman 2008). We learn from this analysis that a simple focus on organic does not guarantee a sustainable local foods movement. Rather, local foods movements should distinguish between corporate industrial organic farms and smaller family farms committed to holistic organic practices. This characteristic must be stressed – in addition to ideas of decreased food-miles and increased local venues – in order to cultivate a more holistic sustainability.

The last trait of sustainable local food movements stressed in this paper is that they “express social and environmental values about how and where food is grown, distributed and eaten and the social relations that underpin these cultural and economic practices” (Jarosz 2008, p. 234). This feature contributes to those outlined above, explicitly highlighting the importance of social relations and food production that seeks to promote fairness and equality. It reflects the idea that local foods movements should fairly employ and support labor, care for the land, and

help to provide fresh local produce to individuals from all socioeconomic backgrounds. This is perhaps the most difficult characteristic for local foods movements to truly meet; however, it is also one of the most important. Ultimately, local foods movements must draw into the fold tenets of social, ecological, and economic equality and viability in order to truly become holistically sustainable.

Each of the four identified features brings unique considerations to the study of local foods movements. The importance of food-miles in regulating ecological footprint and building social relations, available local markets for products, emphasis on small scale sustainable farming, and a consideration of the social implications of food production are certainly all important factors in crafting a movement towards sustainable change in food production. Any study critically analyzing local foods movements must thus consider each of these four characteristics. However, as various scholars note, the above features of local foods movements have been vastly undocumented in theory (Sonnino & Marsden 2006) and in practice (Born & Purcell 2006). In response, this study: (1) considers the unique positionality of food as a physical, social, and cultural construct, (2) establishes a framework for analyzing the sustainability of local foods movements in practice in three case studies, and (3) develops a theoretical definition of the end goals of local foods movements, in Chapters 2, 3, and 4, respectively. This approach prompts me to ask: What has led to the widespread emergence of contemporary local foods movements? How can local foods movements be defined and developed based on shorter food miles, holistic farming techniques, venues for locally produced food, and socioeconomic sustainability? Can local foods movements help to move different communities towards holistic sustainability? As I answer these questions I attempt to build a base from which I can begin to consider my research question.

Sustainability and the shift from old paradigm to new paradigm thought

The consideration of purportedly sustainable social movements necessarily draws theoretical approaches to sustainability into the conversation. Patrizia Pugliese (2001) argues that sustainability inherently relies on a systemic perspective of life that “acknowledges the complex and dynamic interrelatedness of evolving patterns within and between systems” (p.113). If we are to truly develop sustainability as both a theory and a practice, according to Margaret Wheatley (1999) and Fritjof Capra (1996; 2003), we will need to move beyond classical scientific conceptions of the world that form the basis of many underlying social values. These Cartesian interpretations of the world include views of the universe as a mechanical system, an understanding of human bodies as machines, belief in social interactions as a competitive struggle to survive, and faith in economic and technical growth as a means to unlimited material progress (Capra 1996, p. 6). Such commonly held values reflect an “old paradigm” understanding that life “is about the separateness of things, about constituent parts and how they influence each other across their separateness” (Zohar 1990, p. 69).

Capra and Wheatley suggest instead a “new paradigm” (Capra 1996, p. 6) approach to sustainable systems that draws on several similar theories variously identified as living systems theory (Capra 1996; Capra 2003; Wheatley 1999), co-evolutionary interpretation (Pugliese 2001), and network analysis approach (Pugliese 2001; Sonnino & Marsden 2006). Living systems theory in particular is based on the contention that there is an underlying unity to life and that all living systems share similar patterns of organization. This idea, according to Capra (2003), is based on the fact that evolution has repeatedly selected for the same basic patterns of organizational networks for billions of years. Although these network forms may become more elaborate, they are always variations on the same basic theme. A self-generating chemical reaction follows the same basic rules as a tropical ecosystem. Living systems theory argues that

an understanding of natural systems' fundamental network form can inform our approach to human social systems and, by extension, social movements. This new paradigm theoretical approach stresses an understanding of the world as “open, nonlinear, messy, [and] relational” (Wheatley 1999, p. 109). Simply, it emphasizes the interdependence, non-linear interactions, unpredictability, and instability of ecological living systems. These new approaches to interpreting reality, according to Capra (1996), prepare us to engage in a “radical reconceptualization of many fundamental idea ... a shift of perception from stability to instability, from order to disorder, from equilibrium to non-equilibrium, from being to becoming” (p. 180).

This paradigm shift highlighted by Capra offers a new means to view sustainable change and transformation in social systems. Pugliese (2001) reports that a living systems perspective “offers scope for a unified vision of ... profound[ly], interrelated processes” and allows us to “identify a number of interacting social, economic, natural, cultural, and political subsystems ... undergoing a process of mutual co-evolution” (p. 115). Local foods movements – as complex amalgams of social, economic, ecological, and political factors – are distinctly suited to analysis through the lens of living systems theory. This paper draws on such a perspective to study both change *within* local foods systems and the power for transformative social change when connections develop *among* local foods systems in Chapters 4 and 5, respectively. I submit that such an analysis fills a clear gap in the theorization of local foods movements and can therefore provide critical insight into developing reflexive translocal social movements. As I engage with these ideas, I ask: How does living systems theory reconceptualize our understanding of *how* change occurs within local foods systems? How can translocal relationships among local foods systems lead to the emergence of social change?

I use all three theoretical perspectives introduced here to answer my primary research question: How can local food movements facilitate social change and build a foundation for holistic sustainability at the global level? I submit that while Born and Purcell's local trap and holistic definitions of local foods movements are critical to determining sustainable *end* goals of a local foods movement, living systems theory provides a practical *means* by which local foods movements can evolve to affect global social change.

Methodology

In order to answer the above questions, I use a research methodology that utilizes both resources from the primary literature and draws from my experience as a participant-observer engaging in sustainable agriculture movements in three localities – Auroville, India; the Twin Cities, United States; and Southern Africa. This focus on primary literature and first-hand research allows me to address both theoretical and practical complexities involved in the development of local foods systems. Within the academic literature, I use the geographical primary literature to introduce concerns of scale in conceptualizing and evaluating local foods systems. A diverse range of print sources, including journals articles, books, and personal correspondences enable me to build a foundational understanding of the background and definition of local foods movements. Finally, I draw from scholars on living systems theory to develop my normative model for local and global social change. The combination of these diverse sources provides a firm theoretical basis for my research.

I supplement this theoretical understanding of local foods movements with first-hand research as a participant-observer of the three local foods movements introduced above. The information regarding Auroville, India, was obtained during my study abroad (January 2008-May 2008) when I lived in Auroville and worked on a local permaculture farm. During this time I also engaged with local avenues for food distribution and patronized locally run markets,

bakeries, and restaurants. My complete emersion in the dynamics of food production, distribution, and consumption in Auroville meant that I knew key actors involved and became familiar their critiques of strengths and weaknesses of the Auroville local foods movement. My experience in the Twin Cities derives from my studies at Macalester College (September 2005-December 2008), particularly the summer of 2007 which I spent working with urban gardening organizations in both Minneapolis and Saint Paul. During this time I engaged directly with several organizations – including Sisters’ Camelot, Farm in the City, Youth Farm and Market, GardenWorks, and the University of Minnesota Extension Office – as I created a community gardening space in South Minneapolis. This work enabled me to become familiar with food activist networks in the Twin Cities. Finally, the analysis of the Southern Africa region comes from both my work with the Berkana Institute (June 2005-December 2008) and my trip to South Africa (August 2008). My involvement with the Berkana Institute has included yearly meetings with grassroots community leaders of sixteen organizations participating in a translocal network devoted to increasing food sustainability. My trip to South Africa included visits to four organizations involved in this translocal network – GreenHouse Project, Sebokeng Farm, INK, the Fisherwomen’s Association – during which I was able to work on their projects and engage with the local community. During this time, I additionally obtained information from organization leaders about the complexity of grassroots work in a country plagued by both the legacy of Apartheid and the complex power dynamics characteristic of a semi-peripheral country in the global economy. All personal quotations within the paper were obtained during informal interviews regarding participants’ experiences with sustainable foods movements in each of these locales.

Each of the three case studies used within this paper plays a critical role in developing my study of local foods movements. These three particular locations pose radically different contexts for local foods movements and illustrate their adaptability to diverse circumstances. Auroville introduces issues of food self-sufficiency within a small, insular ecovillage in Southeastern India; the Twin Cities present a diverse urban-rural food exchange program developing based on issues of both food security and food sovereignty; and Southern Africa reveals a complex translocal food network oriented around community food security. Each of the cases reveals both unique insights and complications in defining and theorizing local foods movements. Furthermore, they exhibit practical examples of alternative foods movements manifesting at local, regional, and national levels, thereby adding depth to analysis of scale. I use these three case studies as a lens to illuminate complexities of local foods movements as they arise in different contexts. Ultimately they provide critical practical, grounded support for my assertions about the nature of grassroots movements and their ability to affect global social change.

Outline of Argument

Before proceeding to my analysis, I first introduce a general outline of my argument as it pertains to Chapters 2, 3, 4, and 5. Each chapter analyzes a specific aspect of my central contention – that local foods movements have the potential to both create sustainable change in food systems and serve as a model for broader movements towards social change (*Figure 2*).

Chapter 2 expands on the definition of local food movements introduced in the above theoretical framework and attempts to answer several pertinent questions. I begin by asking: Why are local foods movements occurring in such large numbers *now*? In response, I survey the academic literature to argue that the economic, ecological, and social crises instigated by mainstream industrial agriculture have led to increasing grassroots mobilization. I then turn to the question: Why *food*? Why have local foods movements *in particular* surfaced as a popular

response to consolidated global political and economic control? Here, I contend that food's unique association with identity and place-based communities has led to its emergence as a symbol for broader social transformation. The chapter concludes by characterizing local foods movements as a type of "new social movement" that can be seen as a model for grassroots social change (Hassanein 2003, p. 80).

Chapter 3 begins to address local foods movements from a more critical perspective, opening with a literature review of geographical critiques of local foods movements. This review highlights the work of four scholars –Michael Watts, Doreen Massey, David Harvey, and Noel Castree – and identifies three critical ideas: (1) the role of locality in social movement identity formation, (2) glocalization and the mutually interconnected nature of global and local phenomenon,ⁱⁱⁱ and (3) translocality.^{iv} I argue that these geographical perspectives introduce three corresponding potential shortcomings in local foods movements: (1) elitism in the formation of local, group identities, (2) un-glocal or unsustainable development of local foods systems, and (3) isolationism due to lack of translocal connections. The chapter then applies these theoretical critiques to three case studies – Auroville, the Twin Cities, and Southern Africa – to determine the degree to which they prove valid in each place. Ultimately I argue that each local foods movement is specific to its own locale and therefore exhibits unique strengths and weaknesses when analyzed through a geographical place-space lens. I furthermore contend that the ideas of elitism, unsustainability, and isolationism brought to light by the said scholars must be taken into consideration in further theorization and practice of local foods movement.

In Chapter 4, I further investigate the implications of these three geographical theories, using a living systems perspective to discuss *how* local foods movements form a common identity, develop based on glocal elements of place, and incorporate translocality. Whereas

Chapter 3 looks at the relative presence of these three factors in three case studies, Chapter 4 illustrates how they develop within a local foods system based on what I argue are end goals of holistic sustainability. To show this, I use living systems theory to define local foods systems as living systems and to conceptualize the means by which they change and evolve. This approach is meant to provide a means to transform the way we understand and theorize the development of local foods systems.

Chapter 5 comes back to my initial question: Under what conditions can local foods movements create global social change towards more sustainable food production systems? Put differently, what is needed for local foods systems to become amplified in scale and catalyze the formation of global sustainable food systems? In this chapter, I use living systems theory and Wheatley and Frieze's (2008) "Lifecycle of Emergence" to develop a framework for global social change (p. 1). I supplement Wheatley and Frieze's theory with practical examples from my case studies to suggest a three-stage process through which local foods movements can facilitate global social change: (1) *networks* form between individuals with shared purpose, (2) networks coalesce into *communities of practice* that develop new praxes together, and (3) *systems of influence* emerge with the power to challenge societal norms (p. 5-6). I contend that this process can be supported by the development of reflexive (DuPuis & Goodman 2005) and diversity-receptive (Hinrichs 2003) local foods systems in translocally connected locales around the world. I submit that this three-step model provides a means for local foods movements – as well as other grassroots social movements – to affect transformative global social change.

*Chapter Two – The Unique Positionality of Food:
The Local Foods Movement as a Model for Social Change*

Introduction

It is clear from the issues introduced in Chapter 1 that both the means of local foods movements and their end goals of ecological, social, economic, and spiritual sustainability need to be critically examined as we attempt to move towards a more globally sustainable lifestyle. However, regardless of this need to critically theorize local foods movements – which I will develop and expand more in later chapters – it remains undeniable that over the past ten years local foods movements have emerged at unprecedented rates across the world (Feagan 2007; Feenstra 2002; Hendrickson & Heffernan 2002; Pietrykowski 2004; Smith & Mackinnon 2007). In this chapter, I begin with the question: Why are these particular movements occurring *now*? What has triggered a tipping point (Gladwell 2000) in social awareness and tolerance? The shift taking place around food, which moves past an old paradigm of industrial agriculture to a new paradigm of sustainable agriculture, can also occur in other spheres of our lives. However, local foods movements in particular have emerged with distinctive dynamism, engagement, and media focus. This brings up a second pertinent question: Why food? Why have local *foods* movements – as opposed to local zero waste efforts or educational reform movements – emerged as a popular response to consolidated global political and economic control? Here, I submit that food occupies a unique position in the social consciousness due to its relationship to both identity and place-based community. Such positionality enables local foods movements to serve as a symbol of social transformation that inspires people to participate and act for change.

Why Now? The Current State of Mainstream Agriculture

Let me return to the question I raised earlier: Why are local foods movements occurring across a wide range of cultures in such large numbers *now*? I begin with an observation.

Industrial agriculture is based on a constellation of assumptions that emphasize the mechanistic and rational character of the natural world. Or, put differently, it reflects what Capra (1996; 2003) and Wheatley (1999) would refer to as an old paradigm worldview.^v I suggest that the detrimental economic, social, and ecological effects of such a mechanistic approach to agriculture have reached a critical threshold. Specifically, concentrated economic power, irrevocable damage to the environment, weakened community structures, and individual health problems have become undeniable and unavoidable. The extended reach and visibility of these deleterious externalities has, in turn, provided the space and motivation for local and global movements to emerge as powerful actors for change. In Capra and Wheatley's words, the emergence of these grassroots movements signals a *paradigm shift* that has the potential to challenge entrenched assumptions and transform the dominant societal worldview. In this section, I discuss the four central negative effects of mainstream agriculture identified above and analyze how they have created a climate for grassroots mobilization.

Economic unsustainability: concentrated power and influence

Over the past thirty years, the concentration of economic power in mainstream agricultural production has reached unprecedented levels. This aggregation of power, in part, arises from an old paradigmatic model of progress that stresses economic growth and fosters elitism. Although some scholars believe that “this industrialization, concentration of economic power, and globalization of the agro-food sector are not immutable processes with a forgone conclusion,” it nonetheless remains true that these processes dominate agricultural reality (Hassanein 2003, p. 79). Five seed companies control the global market – Monsanto, Syngenta, Dupont, Aventis, and Dow – while five supermarket chains – Kroger, Albertson's, Wal-Mart, Safeway, and Ahold USA – account for over 40% of food retail sales in the United States (Hendrickson & Heffernan 2002, p. 350, p. 356). Hendrickson and Heffernan (2002), for one,

have documented the incredible power and control consolidated within this global system. Statistics such as these have caused Hassanein (2003) to emphasize the “control that powerful and highly concentrated economic interests exert on food and agriculture today” (p. 79). This dominance and power of select corporations also reflects an old paradigmatic model of progress and elitism through economic growth (Wheatley 1999). Consolidated corporate control manifests across all scales – from microscopic patents on the DNA of Genetically Modified Organisms (GMOs) to macroscopic control over homogenous distribution of, for example, beef filets to every McDonalds in the nation. Due to their disproportionate share in the agricultural market and a “simple, elegant focus on the bottom line,” capital and economic power is concentrated in the hands of the above corporations (Hendrickson & Heffernan 2002, p. 359). Furthermore, since “economic power does translate into political power,” agricultural conglomerates can compel governments to enact beneficial legislation (Hendrickson & Heffernan 2002, p. 358). In simple terms, these corporations have access to the capital and economic influence – and therefore the political leverage – to control the lives of the vast majority of the populace. Moreover, because they control our access to sustenance we need for survival, we are completely dependent on them. Hassanein (2003) states the obvious: these “institutionalized sources of power and inequity [. . .] currently dominate our lives” (p. 143).

Ecological unsustainability: environmental devastation

In addition to agricorporations’ monopolization of economic power, they continue to endorse agricultural practices that have devastated the natural environment. As Wheatley (1999) comments, operating from a Cartesian perspective leads us to draw “boundaries around the flow of experience, fragmenting whole networks of interaction into discrete steps” (Wheatley 1999, p. 30). In the industrial agricultural paradigm, this has led to the division of complex food systems into separate realms of production, processing, distribution, marketing, and consumption. Each

of these segments negatively impacts the environment. However, lack of transparency in the system means such externalities are isolated and often underestimated by the general public. Practices ranging from the use of GMOs, to large-scale mechanization and industrialization, to intensive use of fertilizers and pesticides, to increasingly global sourcing and marketing dependent on extensive oil consumption have thus gone unnoticed and unheeded by consumers in the twentieth century.

Through the affluence and influence of the agribusinesses described earlier, such harmful practices have spread quickly throughout the Western world, despite increasing academic critiques of their environmental impact (Berry 1977; Carson 1960; Pollan 2006). Carson's (1960) famous commentary explicitly reveals the danger of industrial agricultural practices, particularly their reliance on pesticides, herbicides, and fertilizers. She says, "Along with the possibility of the extinction of mankind by nuclear war, the central problem of our age has ... become the contamination of man's total environment with such [chemical] substances of incredible potential for harm" (Carson 1960, p. 8). This environmental degradation has continued to be documented extensively by additional scholars, especially in the past ten years (Feagan 2007; Gore 2000; Jarosz 2008; Pugliese 2001).

The post-colonial implementation of Third World development programs, moreover, has provided a means for these processes to spread around the world and become a globally accepted agricultural measure of progress. Pugliese (2001) describes the ubiquitous diffusion of industrialized agriculture, regardless of their affect. She says: "Both [Western labor organization and externally developed technology packages] were assumed to be universally applicable, irrespective of local social and environmental contexts" (p. 113). Essentially, then, the industrial agricultural paradigm has become a global norm due to both its putative ability to increase

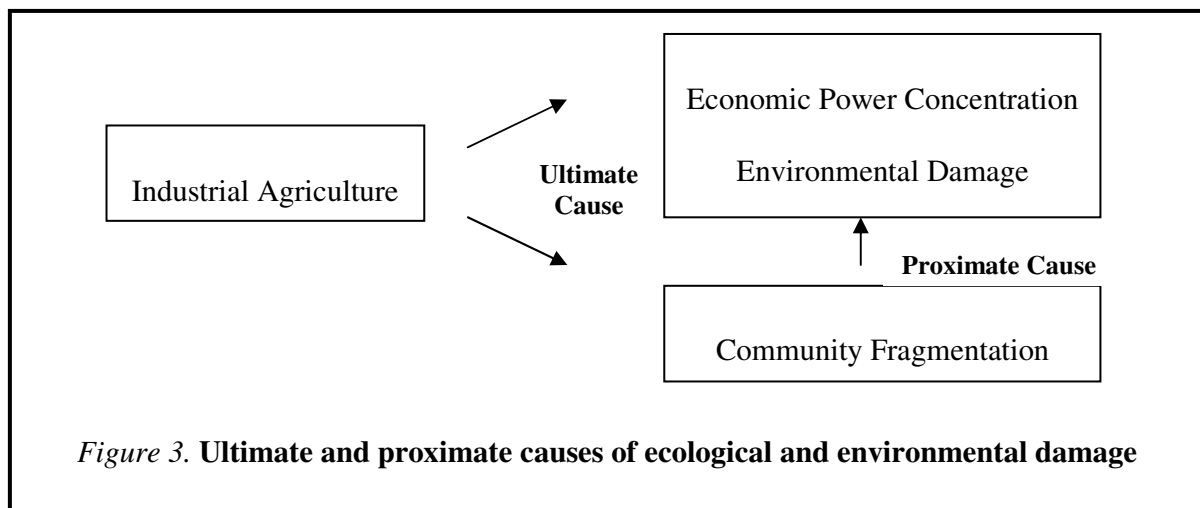
overall food availability (Pugliese 2001) and the economic power and political leverage of agribusiness conglomerates. Thus, the current environmental crisis induced by industrialized agriculture is not unique to one place or region; it has become a world wide epidemic afflicting our soils, groundwater, air, and crops.

Social unsustainability: community fragmentation

In addition to economic and environmental externalities, industrial agriculture also exerts substantial influence on community dynamics. Let me begin with Wheatley's (1999) observation that predominantly mechanistic approaches fail to take into account even the "most basic human dynamics" in social systems (p. 164). In industrial agricultural systems, this tendency to disregard human dynamics often results in emphasis of economic relationships over traditional social relationships. Hendrickson and Heffernan (2002) accordingly assert: "the critical issue we in Western society are facing is resisting the commodification of our personal, private relationships by the same logic that rules our political and economic lives" (p. 348). Several scholars have documented the inevitable effect on rural and urban communities of this shift from community-oriented family farms to large-scale mechanized production (Berry 1977; DeLind 2006; Pollan 2006; Nabhan 2002). Wendell Berry (1977) argues that it is this transition that has led to the destruction and fragmentation of rural communities. He says, "We now have only the remnants of [farm] communities [after several decades of increasing industrialization]. If we allow another generation to pass without doing what is necessary to enhance and embolden the possibility [for the culture and community] now perishing with [farm communities], we will lose it altogether. And then we will not only invoke calamity – we will deserve it" (Berry 1977, p. 44).

The loss of a stabilizing social fabric amplifies the deleterious effects of economic and environmental externalities. As the capitalist and industrialist paradigm spreads to our food and

agricultural systems, we must increasingly face its influence on our communities and social relationships. DeLind (2006) observes that: “*our physical (and mental) separation from our places ... generally has come to lay us low*” (emphasis added) (p. 142). This commentary points to the contemporary disjunction between individual and place-based community as a crucial *cause* of many of the economic, environmental, and social problems discussed above. Thus while an increasingly large-scale and industrialized agriculture can be said to be the ultimate cause of economic power concentrations, environmental damage, and community fragmentation, weakened community structures also act as an additional proximate cause of ecological and economic destruction (*Figure 3*). Simply, a devastating positive feedback chain accelerates the breakdown of our economies, environments, and communities.



Personal unsustainability: diet and disease

The catastrophic effects of an industrialized food production system also manifest in individual health problems of obesity, diabetes, cardiovascular disease, and cancer increasingly plaguing contemporary societies. The so-called “Western diet,” adopted by many in globalized countries, reflects agribusinesses’ preference for foods that can be produced cheaply and sold for profit. The Western diet is characterized by reliance on a select few crops – wheat, corn, and soy

– highly processed foods with added sugars and fats, and meat (Pollan 2008). This diet, which has spread with the advent of industrial agricultural practices around the world, has been directly tied to the health issues introduced above (Pollan 2008). T. Colin Campbell (2000), for one, has showed that “groups with higher cancer rates consumed not just more fats, but also more animal foods and fewer plant foods as well” (p. 849). Such a diet – high in fat and animal products, low in plant products – has been promoted and spread by agricultural corporations in order to obtain maximum profit.

Independent studies conducted by various scholars (Nabhan 2004; O’Dea 1984; Renner 2005; Pollan 2008; Taubes 2007; Temple & Burkitt 1994) have shown that the introduction of refined flour and sugar into previously plant-based diets results in a predictable chain of obesity, Type II diabetes, hypertension, stroke, and heart disease. DeLind (2006) furthermore notes that: “foods industrially produced and widely transported ... foods ‘out of place’ ... [are] closely implicated in the incidence of immune system disorders” (p.132). Thus it cannot be coincidental that Americans’ spending on diet-related diseases has increased drastically as agribusinesses have acquired increasing economic and political power to market their products.^{vi} Guthman and DuPuis (2006), moreover, make the intriguing point that the body is a “site through which capital circulates as commodities” and thus “becomes a place where capitalism’s contradictions are temporarily resolved” (p. 442). In other words, the body incurs the consequences in a world governed by an underlying economic need to continually increase consumption. Clearly, the old paradigmatic linear approach to food, health, and disease based on mass production of monocultures by agribusinesses, mass consumption induced by clever marketing, mass societal disease, and mass medical fixes cannot be sustained by our bodies – or by our economies, environments, and communities – over time.

Why Food? The Power of Cultured and Embodied Nourishment

This comprehensive constellation of problems induced by a corporate control of global agriculture based on Cartesian, mechanistic thought has provided individuals and communities with the grounds to rally for systemic social change. Local foods movements draw from an increasing societal awareness of critical problems within the global food production system: concentrated of economic power, environmental damage, weakened community structures, and individual health problems. The converging problems of the global production system and the unique alternatives posed by local foods systems has led to increasing popular mobilization. The question emerges, however: Why is food so important? How has food *in particular* motivated people to act for transformative social change in all spheres of their lives? If, as I have begun to contend, food represents a unique source of inspiration for social change, then it is imperative for a broader understanding of grassroots social change to investigate how and why food serves to empower and motivate individuals and communities.

Food and the formation of identity

I begin with a proposition: food is closely associated with individual identity. The biology of this assertion is simple. The food we consume literally becomes a part of us, forms our physical being: we are embodied by the nutrients we ingest. As we eat, our bodies break down the food to its constituent macromolecules and ions: sugars, amino acids, lipids, and vitamins. These nutrients continually nourish and rebuild our bodies. Sugars enter a process called glycolysis that produces energy within our cells, amino acids bond to maintain and strengthen muscles, lipids cluster together as a source of long-term energy, and vitamins play critical roles in intracellular reactions. Simply and elegantly, the very molecules of the food we ingest become a part of our physical being. The physical ties between food and body thus lead food to possess distinctive influence over individual identity – to comprise who we are in a truly

basic sense. This close association between food and body, moreover, means that food possesses a unique positionality in our lifeworld unequalled by any other commodity.

The unique properties of embodiment likewise quite physically connect our bodies to the land we live upon. Berry (1977) describes this relationship: “we and our country create one another, depend on one another, are literally part of one another; ... our land passes in and out of our bodies just as our bodies pass in and out of the land ... we ... are a part of one another, and so cannot possibly flourish alone” (p. 22). Just as the land nourishes us by growing sustenance that builds our bodies, we return these nutrients to the soil once we die. In this process, food serves as the intermediary between the land and our bodies, converting the earth’s nutrients to edible substance and eventually to part of our bodies themselves. This property of food fundamentally connects us to place and, when coupled with the idea of embodiment, has the ability to foster the formation of a distinctive place-based identity. Thus food both intrinsically comprises our material identity and anchors us to our environment. Such positionality – based both on the substance and symbolism of food – leads food to have a powerful association with individual worldview.

DeLind (2006) takes this connection one step further, saying: “the ground under our feet – in both its wild and built configurations – can shape bodies, *nurture identity*,” and root us in our environment (emphasis added) (p. 141). In her view, the material embodiment of food profoundly influences our mental sense of self. Simply *what* we are influences *who* we are. Thus, food is not simply something to be consumed – economically or physically – it is a substance which comprises our very being and influences us in subtle ways we cannot predict. Because of this deep impact of food on our material and mental identity, DeLind (2006) predicts that: “local food will be something that we share, something that we actively learn from our cells and our

soils on up – rather than something we consume. By doing this, we will be engaging in a place-based identity politics that has the potential to keep us grounded affirmed, and diverse” (p. 143). Food, then, becomes a tool for individual identification and mobilization based both on its commonality and on its ability to nurture psychosomatic and place-based identity.

Food and the formation of place-based communities

In addition to embodying a sense of individual self, food also plays an influential role in fostering connection to place and sociocultural identity. As Feagan (2007) observes, “Food and its powerful sociocultural and geographic associations are arguably more critical symbolic determinants of identity than many other elements of cultural consumption” (p. 33). Put differently, food cultivation and preparation often have strong ties to local culture and therefore represent unique ways to define and construct a shared identity (Feagan 2007, p. 23).

How does food explicitly relate to social interactions within the community? Berry (1977) asks us to: “consider the associations that have since ancient times clustered around the idea of food – associations of mutual care, generosity, neighborliness, festivity, communal joy” (p. 9). Food preparation and consumption is a communion that links us to those around us, illustrates our values, and reflects our community. As Berry (1977) notes, “character and community – that is, culture in the broadest, richest sense – constitute just as much as nature, the source of food” (p. 9). The manner in which food is cultivated, prepared, and consumed varies extensively between places and provides a clear illustration of cultural diversity. Furthermore, the communion of food consumption provides a unique way to both physically nourish our bodies and satisfy our need for social connection. By practicing a particular sociocultural method of food cultivation and consumption, individuals become a part of a physical and psychological group community. In this way, “food becomes the expression of relationships that are much more important than exchange relationships” and “is an inherent part of a socially meaningful

process, the building of community” (Hendrickson & Heffernan 2002, p. 364). Ultimately, the unique positionality of food in our lives allows it to become a powerful symbol for personal and shared sociocultural identity and therefore to serve as a distinctive rallying point for reclaiming autonomy and catalyzing social change.

Food and social transformation

The widespread emergence of local foods movements has caused many scholars to attempt to delineate why food has become a rallying point for grassroots mobilization and social change. Michael Pollan (2006), for one, asks, “Why should food, of all things, be the linchpin of the rebellion [against damage done to local economies and the land by the juggernaut of world trade]” (p. 255)? His answer includes many of the characteristics and dynamics discussed above. He says,

Perhaps because food is a powerful metaphor for a great many of the values to which people feel globalization poses a threat, including the distinctiveness of local cultures and identities, the survival of local landscapes, and biodiversity. (Pollan 2006, p. 255).

Simply, food occupies a central place in our lives, identities, and communities and can therefore serve to catalyze action towards change. Because food is so central to our reality, changing the way we relate to food can transform the way we relate to many other processes and influences in our lives. As Feagan (2007) observes: local food can promote a “realignment of human social interaction in the context of place and food” and provide resistance to the homogenization imposed by the current globalized food production industry (p. 33). Simply, food’s strong association with personal and sociocultural identity lead it to become a particularly compelling social movement symbol with the ability to mobilize both individuals and communities.

One of the most important aspects of local foods movements is that they create the space for both individual and collective agency (Hassanein 2003, p. 79). As Pollan (2006) says, “We can still decide, every day, what we’re going to put into our bodies, what sort of food chain we

want to participate in. We can, in other words, reject the industrial omelet on offer and decide to eat another, [more sustainably produced, omelet]” (p. 237). Local foods movements afford individuals a sense of agency and control to change both the face of their lives and of society around them in small yet practical ways. Moreover, local foods movements have the ability to rebuild both local communities based on place and broader translocal communities based on shared values of sustainability, as will be discussed in Chapter 4. Food is at once a tangible commodity and a symbolic construct – a quality that provides local *foods* movements in particular with the positionality to powerfully affect social change. As some scholars note, the transformation of food’s role and place in our lives “reflects a broader societal transformation” (Hendrickson & Heffernan 2002, p. 349).

Local Foods as New Paradigm Social Movements: Characterizing the Sustainable Response

Given both the growing awareness of economic, environmental, social, and personal consequences of corporate industrial agriculture and the purported positionality of food as a social motivator, it seems only logical that local foods movements have emerged over the past ten years with persistence and dynamism. When observing these diverse grassroots movements, however, the question arises: How can we characterize the sustainable response to global industrial agriculture that is emerging in the form of local foods movements? According to Hendrickson and Heffernan (2002), “space has been disconnected from place in the dominant food system [. . .] a problem that is being explicitly rejected by those involved in local food system movements across the globe” (p. 369). Although Born and Purcell (2006) rightly point out that: “just because the current global food system is capitalist, industrial, and unsustainable does not mean that all global systems exhibit these failings,” here it is simply important to recognize that problems do exist in the current global food system (p. 197).^{vii} Thus, local foods movements emerge in binary contrast as: “spaces of resistance and creativity in which people

themselves attempt to govern and shape their relationship with food and agriculture” (Hassanein 2003, p. 79). The contrast between global and local, though problematic (Born & Purcell 2006; DuPuis & Goodman 2005; Hendrickson & Heffernan 2002; Hinrichs 2003), serves as a clear identifier that is often used to differentiate between the dominant economic paradigm and emerging grassroots social movements. However, I ask: Can we go deeper than this? What characteristics do local foods movements share with other contemporary grassroots social movements that exemplify a fundamentally different approach to social organizing and change?

To begin, local foods movements provide a coherent argument against the global food production system that is at once unified and able to reflect the unique elements of each locale. Several scholars have reflected on the diverse approaches to sustainable food production that have arisen in different places (Campbell 1997; Carnes 2003; Feenstra 2002; Shreck et al. 2006). The unique positionality of food, discussed previously, means that it provides motivation for individuals to engage in alternative food consumption and movements for food system change. These sustainable food movements incorporate a wide range of supporters in an attempt to regain control over food production, as I will illustrate through my three case studies in later chapters.

Many scholars additionally note that: “Food, like no other commodity, allows for a political reawakening, as it touches our lives in so many ways” (Welsh & MacRae 1998, p. 241). Local foods movements thus provide a rallying point for those who increasingly protest the global food production system’s detrimental effects on their bodies, communities, and soils. By introducing new alternatives, local foods movements shift the entrenched power structures and institutionalized traditions of global agribusinesses. Hendrickson and Heffernan (2002) comment that: “The true measure of these alternatives might be the inspiration they give to others to envision an alternative way of being in the food system” (p. 366). By encouraging individuals to

dream of different ways to be present in the food system, local foods movements provide a means to dream of different ways to be present in the broader global capitalist system (Born & Purcell 2006).

Local foods movements also draw strength from their belief in self-reliance and sustainability. While the global food production system heavily relies on external inputs – mechanization, government subsidies, external markets, oil consumption, fertilizers, and pesticides – local foods movements attempt to be as internally sustainable and stable as possible. This “awareness of self-potential and dynamism” in local foods movements sharply contrasts with notions of dependency and inflexibility advanced within the dominant global paradigm (Pugliese 2001, p. 122). Local foods movements are often simultaneously able to recognize the inherent weaknesses of the global system and develop confidence in their own ability to change the face of food production. Therefore, “It is this belief in their own power, as well as their understanding of where the larger system may be vulnerable, that allows them to challenge it” (Hendrickson & Heffernan 2002, p. 365). This dual knowledge leads to the creation of a distinctly powerful social movement. Local foods movements, then, provide inspiration and sow the seeds for a broader, transformative social change.

Such characteristics of local foods movements have prompted some to observe that they are “the most important social forces” and that they “could provide a countervailing tide to global integration of the agro-food system, to the decline of household forms of agricultural commodity production, and to structural blockages to achievement of sustainability” (Buttel 1997, p. 352). Because local foods movements originate at the grassroots and exist at the margins of contemporary food production, they have the ability to completely rethink and redefine the way we approach our food. Gottlieb (2001) observes that: “new foods movements” have begun

to build the potential for social change by “challenging the ways we think and talk about food” (p. 271). As other scholars note, moreover, the agrifood system is ultimately “both a symptom and a symbol of how we organize ourselves and our societies” and represents “a microcosm of wider social realities” (Lang 1999, p. 218).

Hassanein aptly qualifies local foods movements as belonging to a broader category of new paradigm social movements that are “dynamic and multidimensional” attempts to “bring about changes in civil society by transforming values, lifestyles, and [social] systems” (p. 80).^{viii} As such, local foods movement represent a particularly important type of new paradigm social movement because they have the unique ability to “protect the lifeworld from encroachment by the dominant logic of the systems world” (Hendrickson & Heffernan 2002, p. 366). Pugliese (2001) additionally observes that local foods movements have a powerful influence on community dynamics due to food’s unique association with identity and place. She says that alternative agriculture “seems to have a valuable ability to activate people” and that “people [involved in alternative agriculture] can have a key role in animating rural areas” (pp. 123, 119). Thus, local foods movements go far beyond the local-global binary to create a new paradigm sustainable response to industrial agriculture based on individual identities, place-based communities, and a common desire for transformative social change.

Conclusion

In this chapter, I have attempted to investigate both the emergence of local foods movements and their importance as what several scholars identify as a new paradigm social movement (Feagan 2005; Hassanein 2003, Pugliese 2001). I began with the question: Why are local foods movements emerging *now*? In response, I argued that the current state of mainstream agriculture – including excessive concentration of economic power in the hands of agribusinesses, devastation of the environment, fragmentation of communities, and spread of

chronic health problems – has led to widespread dissatisfaction with our current food production system. In response to the question: Why *food*, I contended that the association of food with identity and place-based communities has led to its emergence as a symbol of social transformation and change. After addressing these two critical questions, I proceeded to characterize local foods movements as part of a broader grassroots trend towards movements that emphasize holistic sustainability, local activism, and distrust of increasingly concentrated power in economic and political systems. Thus I submit that local foods movements, as new paradigm social movements, can be said to be indicative of a widespread paradigm shift taking place in myriad locales around the world.

This paradigm shift will require economic modification and ecological modification, community change and individual change, social reworking and political reworking. Additionally, to be successful, local new paradigm social movements must take care to avoid Born and Purcell's (2006) local trap – introduced in Chapter 1 – of isolationism and so-called unreflexive thinking (DuPuis & Goodman 2005). This chapter has been meant to provide an introduction to the fundamental negative and positive stimuli spurring diverse local foods movements to action. In the next chapter, I narrow my focus from this broad causal framework to look at specific instances of local foods movements using a geographical perspective. Specifically, I use the work of four geographical theorists to discuss specific scalar challenges local foods systems face as they attempt to develop and change within their unique localities. I then draw upon this geographical theory to frame an analysis of three case studies: Auroville, India; the Twin Cities, United States; and Southern Africa.

Chapter Three – A Critical Perspective on Local Foods Movements in Theory and Practice

Introduction

The opening chapters of this thesis defined local foods movements and stressed food's unique association with embodied identity, place-based community, and broader societal change. However, I have yet to analyze the viability of local foods movements as social movements. Likewise, I have not addressed the normative and practical difficulties such grassroots social movements face as they attempt to affect sustainable social change. This chapter attends to both issues by shifting from a general review of food and local foods movements to begin to look at local foods systems as intentionally constructed social movements in both theory and practice.

In part one of the chapter, I consider issues of place and scale in building grassroots social movements raised in Chapter 1 (Born & Purcell 2006). Here, I draw on several additional scholars (Castree 2004; Harvey 1990; Hassanein 2003; Massey 1999; Watts 1999; Watts 2000) to return to several questions raised in Chapter 1, namely: How can a scalar conceptualization and practice of local foods movements help them to avoid being caught in the local trap? How do geographical theories of locality and place help to critically analyze the means by which local foods movements attempt to form identity, develop sustainably, and affect social change? To answer these questions, I draw predominantly on the work of four scholars – Michael Watts (1999; 2000), Doreen Massey (1999), David Harvey (1990), and Noel Castree (2004) – to build a framework for considering issues of place and locality in local foods movements. Taken together, these academics provide a foundation for understanding the intricacies of whether grassroots social movements can sustainably transcend the local trap. This analysis will form the basis for Chapters 4 and 5, where I use living systems theory to discern *how* local foods movements can escape the local trap and facilitate global social change. The first part thus

attempts to conceptualize the theoretical complexity of local foods movements as social movements.

In the second part, I apply this geographical lens to case studies of Auroville, India; the Twin Cities, United States; and Southern Africa to see how they can contribute to critiques of local foods movements *in practice*. This exploration examines these diverse local foods movements to discern if they are able to facilitate social change towards holistic sustainability. The analysis additionally serves to characterize the strengths and weaknesses of each local foods system when critiqued through a geographical place-space lens. I argue that such geographical perspectives are critical to analyzing the sustainability of local foods movements in specific places and contribute to clear gaps in the existing literature identified by Born and Purcell (2006) and Sonnino and Marsden (2006). This critique of local foods movements allows me to propose a means by which local foods movements can evolve to become more internally sustainable and to catalyze global social change in Chapters 4 and 5, respectively.

The Geographical Imaginary and Theories of Place

Place and the formation of identity in social movements

To begin, I ask: How does a geographical perspective help to illuminate the process of identity formation in social movements? This section narrows the discussion of associations between food, place, and identity introduced in Chapter 2 (Berry 1977; DeLind 2006; Pollan 2008) to look specifically at geographical theories of group identity formation. Because local foods movements are socially constructed based on shared identity, a geographical lens provides a powerful means to critique both their theoretical foundations and actual practices.

According to Watts (1999), identities are not given but constructed based on cultural subjectivities, relationships to place, and increasing influences of globalization. However, “the real issue is how, from what, by whom and for what” these identities are formed (Castells 1997,

p. 7). Agendas guised within social movements – just as within corporations or industries – can in fact reflect the interests of an elite majority. This has caused Born and Purcell (2006) to note: “the question of who is empowered by localization ... will *vary by case*” (emphasis added) (p. 197). Local, in some cases, can be just as problematic as global. Thus local foods movements, and indeed any grassroots social movement, must be aware of who benefits from localization in each specific locality – a fact that may be revealed by studying which individuals participate in or are excluded from the movement, respectively. As Born and Purcell (2006) contend, “the particular social and ecological outcomes of each rescaling [towards localization] never must be assumed but always subjected to critical analysis” (p. 197). Local movements, therefore, cannot be uncritically regarded; rather, their participant composition, identity, and goals must be analyzed in both theory and practice

In addition to concerns of elitism and exclusion in social movements, the issue of group identity becomes a particularly pertinent concern. Group identity, as Castree notes, depends on a common history and geography that must be articulated in a way which reflects both the unity and diversity of participant identities. Interestingly, Castree (2004) also notes that identity formation can reflect “reclamations of lost senses of self and community” that attempt to constitute that which they essentialize (p. 154). Simply, group identities such as those defined within social movements often reflect that which these groups lack, but wish to reclaim. This can be seen in both *local* food movements and *sustainable* agriculture movements that reject the globalized, unsustainable nature of the mainstream food production system. Identity in this sense is not simply a personal label, but a means of drawing boundaries and articulating relationships within an increasingly interconnected world. Castree (2004) appropriately identifies that: “The idea of articulation draws analytical attention to *how coherence is rendered* ... and to how the

people assuming a given identity are interpellated into political projects” (emphasis added) (142).

Watts (2000) and Castree furthermore contend that celebrating identities as local constructs rather than acknowledging that they are “partly crafted out of emergent translocal [identities]” can lead to dangerous manifestations of chauvinism, exclusion, and elitism (Castree 2004, p. 155). Here the danger of uncritical celebrations of the local become apparent – if local foods movements craft an identity based solely on localism rather than on a holistic sustainability that includes economic, ecological, and social dimensions, they run the risk of falling prey to the local trap. As Watts (2000) notes, unreflexive celebrations of localism risk forgetting that “the local is never purely local but ... created in part by extralocal linkages and practices over time” (p. 32).

This scholarship poses an interesting point for investigation as I begin to analyze local foods movements in particular and social movements in general. How do these movements articulate their identities, values, and goals; how do the diverse identities of participants factor into communal vision construction? Put differently, how do local foods movements develop end goals based on the diversity of their own locale? Here, it is important to note that: “Which goal is achieved will depend ... on the agenda of who are empowered by the scalar strategy [i.e. localism]” (Born & Purcell 2006, p. 196). Group identity and diversity, or lack thereof, incorporated within a social movement is closely correlated to the goals and outcomes of the particular movement. However, as Hassanein (2003) observes, identity construction and articulation of clear end goals are often difficult to translate into practice. Thus, the second part of this chapter begins to look at how identity is constructed in each of my case studies and

analyze to what extent vision is actualized, a task that will be continued throughout Chapters 4 and 5.

Glocalization and development in relational spaces

The next question I ask from a geographical perspective is: how can local foods movements develop organically based on the unique conditions of each locality? In response, I draw upon Doreen Massey who in *Power-geometries and the politics of space-time* (1999) defines yet another geographical imaginary. She distinguishes between prevailing conceptions of place, arguing that they do not adequately reflect the complexity of our localities. She aptly identifies two geographical imaginations of place-space relationships – “Newtonian” and “relational” – before proceeding to present her own “hybrid” approach to conceptualizing place. According to Massey (1999), the first, classic conceptualization of place is a “Newtonian, billiard-ball view,” that presents places as discrete, isolated units which can only be disturbed by external intrusions (p. 36). Those who subscribe to these theories of place – including many geographers and anthropologists, as Castree notes – believe that the local can exist without the global, that they do not share any relationship. Such scholarship can easily fall prey to endorsing “geographical apartheid” (Castree 2004, p. 145). Massey’s work emphasizes the importance of geographical theory in reflexively framing and studying social movements such as the local foods movement in a way that avoids Castree’s (2004) geographical apartheid or Born and Purcell’s (2006) local trap. Later in this chapter, I will draw on this theory to stipulate that social movements based on locality and common identity, such as local foods movements, must transcend Massey’s (1999) “discrete” or “Newtonian” localism in order to affect positive social change (p. 36).

The second dominant geographical imagination Massey (1999) critiques is one purely relational, reflecting the idea of a world comprised of “immense, unstructured, free, unbounded

space” (p. 17). This vision reflects the worldview promoted by proponents of free market globalization such as multinational agricultural conglomerates, the International Monetary Fund (IMF), the World Bank, and the World Trade Organization (WTO). Such a conception of space devalues the specificity of places, instead preferring to regard them as uniform nodes within the unifying, equalizing force of globalization – a view that supports the policies of large corporations and governmental organizations. Johannes Biringer (1999) confirms Massey’s view that this relational view of place leads to: “The unavoidable fusion and confusion of geographical realities, or the interchangeability of all places, or the disappearance of visible (static) points of reference into a constant commutation of surface images” (p. 121). This ungrounded, solely relational view of locality fails to take into account the complexity of place-space relations. It also reveals the importance of locally grounded social movements that nonetheless remain open to global influences.

After critiquing the two dominant geographical imaginations of place-space relationships, Massey (1999) proceeds to introduce a third “hybrid” approach to conceptualizing place (p. 144). Here, she defines places as:

the sphere of juxtaposition, or co-existence, of distinct narratives, as the product of power-filled social relations ... This is place as open, porous hybrid ... where specificity (local uniqueness, a sense of place) derives not from some mythical inner roots nor from a history of relative isolation – now to be disrupted by globalization – but by the absolute particularity of the mixture of influences found together there. (Massey 1999, pp. 21-22)

Massey eloquently transcends the dichotomy of global and local, bringing to light the idea that while global is *in* the local, place still matters immensely.

Massey’s interpretation of place adds much needed complexity to the simple discrete / relational place dichotomy introduced above. Likewise, her nuanced understanding of local and global scales as mutually reconstituting one another provides an insightful framework for

studying local movements as they attempt to influence global processes. Massey's approach both highlights the importance of grassroots social movements that exhibit strong ties to place and underscores the importance of looking at glocal factors present in each place. This scholarship builds on Watts' and Castree's work on identity formation to provide an apposite lens to study the development of each local foods movement in place. While Watts and Castree develop a theoretical approach to analyze the sustainability of group identity construction, Massey stresses the importance of continually interactive local and global spheres to creating sustainable social movements in place. Drawing from Massey's work, we can postulate that the very definition of sustainability will vary based on the glocal conditions of each place. This discussion thus raises the question: How can social systems develop sustainably based not only on their identity but also based on the unique amalgamation of local and global factors present in their locale? Part two of the chapter addresses this question, analyzing the development of local foods systems in three cases and evaluating their degree of sustainability in place.

Translocal networks and transcending the global-local binary

The final analyses that I draw on to complete my geographical place-space lens is David Harvey's (1990) ideas of translocality and Noel Castree's (2004) work on "multi-scalar solidarities" (p. 159). Here, I pose the query: How can the theoretical concept of translocality help grassroots social movements to avoid being caught in the local trap? Let me begin with Harvey (1990) who emphasizes that we should conceptualize "global and local as dialectically related concepts," rather than inherently contradictory ideas of scale (p. 426). This requires that we embrace notions of "place-based, rather than place-bound political projects" (Castree 2004, p. 147). The distinction Harvey and Castree make here is subtle yet crucial to framing any analysis of grassroots social movements. *Place-bound* political projects fail to account for influences, relationships, and effects of their actions on those external to their localities; *place-based* politics

follow Massey's ideas, celebrating both the particularity of place and the influence of outside forces. Translocality offers a critical means to ensure social movements both inclusively define group identity and incorporate an awareness of the hybrid nature of place as they develop towards their end goals.

Although Harvey suggests the singular importance of translocal relationships over solely local concerns, Castree aptly identifies some situations in which localism and grassroots movements are appropriate. Castree suggests that "localism borne out of a partial embrace of translocal community [is] *not* atavistic autarchy" (Castree 2004, p. 161). Indeed, in situations where power imbalances have caused marginalization of specific locales, "passivity is simply not an option" (Castree 2004, p. 158). Rather, it is "perfectly possible for inward looking localisms to be founded on an explicit and conscious engagement with extra-local forces" (Castree 2004, p. 163). Thus grassroots social movements can evade charges of isolationism and elitism if they remain aware and open to their position within translocal networks.

This theoretical approach to grassroots social movements defines "a geographical politics that proactively weds agendas in one place to those in myriad others," (Castree 2004, p. 135) and forms the basis for what Cindi Katz (2001) terms "rooted translocalism" (p. 724). Translocality represents an important means to broaden the scale of a social movement. Whereas group identity formation and glocal development require focus on the social system itself and its relation to a particular place, respectively, translocality implies active focus *outside* of a locality and forming connections to diverse others with similar vision and goals. Castree (2004) aptly observes that: "there is nothing more meaningful about face-to-face loyalties than those between distant strangers whose fates are directly, if invisibly, entangled" (pp. 147-48). The translocal

approach offers a powerful model for both transcending the local trap (Born & Purcell 2006) and creating sustainable social change.

I follow Katz (2001) in suggesting that the idea of rooted translocalism provides an important theoretical framework for social movements. Namely, it enables grassroots social movements to develop connection to place while simultaneously embracing connections to myriad other groups and individuals in an increasingly globalized world. Translocality is particularly relevant in the case of local foods movements, as we shall see below, as they seek to re-embed food production and consumption within local social and ecological fabrics. The importance of translocality will be critical to my analysis of the case studies that follow. Castree and Katz's work will additionally be used in Chapter 5, along with that of Massey (1999), Wheatley (1999), and Wheatley and Frieze (2008), to illustrate how translocal connections can enable grassroots movements to affect transformative global change.

The above discussion reveals the wide range of scholarship defining place-space relations as they relate to local social movements. However there remain many openings for further contribution to this dialogue, particularly through direct application of geographical theory to existing local foods movements. As Sonnino and Marsden (2006) note, "the geographical and sociological literature on the development ... [of alternative food] networks remains highly fragmented and under-theorized," (p. 185). Born and Purcell (2006) moreover suggest that: "what is needed in future work is empirical explorations of ... [the theoretical] questions [of place, scale, and sustainability in local movements]" (p. 205). Together, these scholars emphasize the need for the practice of local foods to be evaluated in conjunction with existing social movement theory.

Deconstructing the Geographical Imaginary – Case Studies of Local Foods Movements

Based on the extensive foundation created within the existing literature and the spaces identified for further development, I propose to critically analyze three local foods movements – in Auroville, India; the Twin Cities, United States; and Southern Africa – from a geographical perspective. Based on the issues raised by Watts, Massey, Harvey, and Castree, I propose to analyze my case studies based on issues of identity, development, and translocality. This case study analysis attempts to discern whether analyses of local foods movements reflect or refute criticisms raised by a geographical theoretical perspective. First, in response to Watts' critique of identity and elitism in social movements, the study asks: Who participates in a given local foods movement? Who is *able* to participate in the local foods movement? How has a group identity been established between members of the social movement? In addition to establishing whether the Auroville, Twin Cities, and Southern Africa cases are vulnerable to critiques of elitism, this analysis also contributes empirical evidence to explorations of social movement formation. Second, drawing from Massey's work on the interaction of local and global elements in place, I pose the questions: How have different local foods movement developed? Does their development reflect the unique intersection of local and global factors present in their particular place? These inquiries attempt to determine the relative sustainability of each local foods movement with respect to their specific glocal place. Finally, in response to Harvey and Castree's work on translocality, I ask: Are translocal connections present in a given local foods movement? Can such translocality enable the movement to escape the local trap? As I will show, each case is unique and illustrates radically different constellations of participants, local and global influences, and translocal relationships that reflect each locality. They furthermore enable me to review the innovative approaches developed, and the challenges faced, by grassroots social movements as they attempt to affect social change.

Auroville: a case of unreflexive localism?

The local foods movement in Auroville is inextricably interwoven with Auroville's background and history as an ecovillage^{ix} in Southeastern India. Founded in 1968 by a group of ambitious settlers dedicated to a vision of voluntary simplicity, ecological sustainability, and human unity, Auroville is a member of the Global Ecovillages Network (Global Ecovillages Network 2008). Auroville falls under GEN's definition of an ecovillage, as a community that: "strive[s] to integrate a supportive social environment with a low-impact way of life. To achieve this, [it] integrate[s] various aspects of ecological design, permaculture, ecological building, green production, alternative energy, [and] community building practices" (Global Ecovillages Network 2008). Auroville presents a unique case study as an ecovillage with a governmental, economic, social, and cultural system independent from surrounding villages and the rest of India. Auroville itself is divided into four zones – cultural, industrial, international, and residential – to represent the four essential roles of people in society: culture and education, work and administration, unity and diversity, and residence, respectively (Auroville 2008). Today more than 1,400 people from forty countries around the world have become Aurovillians, living and working in Auroville (Tlaloc 2009).

I begin my analysis of Auroville by exploring issues of identity and elitism in the local foods movement. Here I ask: How is Auroville's boundary as an ecovillage and intentional community established? How do individuals become a part of this community and its local foods movement? Auroville's local foods movement is small and self-contained. It includes fourteen organic farms producing a diverse range of food – including fresh vegetables, fruit, millet, lentils, peanuts, and spirulina – for local buyers.^x These farms are connected to two food-processing units, four local markets, two bakeries, and ten restaurants. Food production, processing, distribution, and consumption all takes place within twenty square kilometers

(Auroville 2008). The boundaries of Auroville as an ecovillage and intentional community, while allowing incredible ecological sustainability within the system, mean that participants in this local foods movement are primarily “Aurovillians,” or Auroville citizens. Although some non-Aurovillian Tamils do engage in Auroville’s sustainable agriculture movement, they are the minority; Aurovillians have access to critical resources and represent the driving force behind the movement. I contend that the inward-looking localism of Auroville – amplified by its distinct boundaries – seems at first glance to indicate a case of “geographical Apartheid” (Castree 2004, p. 145) or “ ‘purified’ place representations” (Castree 2004, p. 135). However, further analysis indicates the complexity of participant composition, group identity, and elitism in an ecovillage-based local foods movement. In order to answer questions of elitism and exclusion, it is therefore imperative that we begin by deconstructing how Auroville’s geographical and social boundaries are established and maintained.

The boundaries of Auroville are established both physically – in terms of geographic space – and socially – in terms of those individuals allowed to become Aurovillians. As mentioned previously, Auroville is spread geographically across approximately twenty square kilometers. The original city plans called for a contiguous spherical ecovillage separated from outside Tamil settlements by a clearly defined line. Failure to buy critical plots of land within the planned location, however, has led Aurovillian land to be interspersed with that owned by nearby villagers and farmers. Several Indian villages – including Kottakarai, Edayanchavadi, Kuilapalayam, Alankuppam, and Annainagar – coexist side by side with Aurovillian communities. The combination of Auroville’s sociopolitical isolation with physical proximity to Tamil villages mean that issues of physical boundary are particularly pronounced in this case.

The presence of Auroville undeniably increases the standard of living for nearby villages; however, it also reinforces entrenched power dynamics in a highly visible manner. Tamil villages within two kilometers of Auroville are extremely affluent compared to those just three to five kilometers away, a fact due in large part to both Aurovillian projects in the villages and diffusion of Auroville's financial capital. Tamils in these villages also possess higher levels of education and increased skills as welders, plumbers, masons, builders, and electricians. At the same time, because even the most privileged Tamil villages have a drastically lower standard of living than that in Auroville, the ecovillage's geographical boundary is both visually and economically defined. Auroville's wealth – predominantly financed by Americans, Europeans, and middle-class Indians – is juxtaposed with the poverty of rural Indian villages and serves as a constant reminder of boundary, exclusion, and power inequity. In this case, Born and Purcell's (2006) assertion that: "if the local community is relatively rich, its economic gains [have the potential to] ... worsen injustice at wider scales," is particularly pertinent (p. 202). Increases in wealth and sustainability, if occurring primarily within the physical limits of Auroville, do have the potential to increase inequality at a regional scale that encompasses the greater Tamil Nadu state. In the case of Auroville, charges of elitism and geographical Apartheid cannot be avoided by passively developing local foods within the ecovillage. Rather, to cultivate a reflexive localism actors must actively seek to abolish power inequities and bridge the physical boundaries to nearby villages, as will be analyzed in the next section.

In addition to the influential role of Auroville's geographical boundaries on participation, the social boundaries of citizenship also dictate issues of elitism and exclusion. Because of Auroville's status as an ecovillage, citizenship is not simply conferred on all individuals who live within Auroville's physical limits. Rather, to become an "Aurovillian," or Auroville citizen,

individuals must go through a time and capital-intensive process in which they become a “Newcomer” for a year. As a Newcomer, individuals must support themselves for twelve months as they work within the Auroville community. Although this process allows for a powerful intentional community to be built within Auroville, it also discriminates against those individuals with families or individuals lacking capital. Due to the close physical proximity of Aurovillian communities and Tamil villages discussed above, many Tamils are in fact able to become Aurovillians using social, rather than financial, capital. At the same time, however, access to financial capital does simplify the process of acquiring Auroville citizenship. As a result, there do exist individuals who have had the luxury to embrace sustainable living in Auroville solely because of their financial capital as highly privileged Europeans, Americans, and Indians.

Citizenship in the Auroville case presents a conundrum: while the social and physical boundaries act to exclude some, they also act to define a powerful intentional community working for sustainable change. Indeed, it is quite certainly this somewhat exclusionary policy of citizenship that has allowed Auroville to institute its radical environmental, social, economic, and spiritual policies over the past forty years. Despite this fact, the sociopolitical barriers to participation in Auroville’s local foods movement leave the ecovillage less likely to be able to “express inter-place solidarity and cooperation *as well as* aspirations for geographical separation and segregation” (Castree 2004, p. 159).

In final analysis, Auroville’s fixed geographic, economic, and social boundaries have critical implications for group identity and participation in its local foods movement. Auroville’s physical and social isolationism leads it to be in danger of being classified as “chauvinistic, essentialist, and exclusive, as opposed to ecumenical, open, and inclusive” (Castree 2004, p. 141). Concomitantly, however, Auroville’s defined boundaries create a powerful group identity

that connects and nourishes those with a common vision of sustainable social change. The conflictive coexistence of group solidarity and elitism is an issue that must be continually confronted in the Auroville case to ensure a reflexive and inclusive localism. The political geographical perspective introduced by Castree and Watts contributes valuable insight to developing Auroville's local foods movement to become more socially, ecologically, and economically sustainable in practice.

The above analysis of participation, boundary, and exclusion illustrates that a powerful sociopolitical group identity at once provides the Auroville local foods movement with critical resources and leads it to be vulnerable to critiques of elitism and defensive localism. In this case, it is particularly important to analyze the development of the local foods movement in place: Has Auroville's local foods movement succeeded in facing its issues of boundary and exclusion to become sustainable in its glocality? The dynamics of Auroville as a glocal place are complex and include dynamics within the ecovillage itself, relationships to Tamil villages, and interaction with international social, political, and economic factors. So how does the socially- and physically-determined group identity influence participant actors and their consequent development of the local foods movement in Auroville? Analysis of the local foods movement within the bounds of Auroville reveals an incredibly ecologically, economically, and socially sustainable system. A chain of organic and biodynamic farms, food processing plants, food distributors, stores, and restaurants all actively shape the face of food available to Aurovillians. Because of the focus on ecological sustainability in Auroville – and the fact local food already comprises one-third of the market – there does not exist the same degree of discourse around “eating locally” or the “local foods movement” as present in the Twin Cities or Southern Africa. Instead, actors involved in food production connect around their common dedication to the

vision of Auroville, making local food available to all Aurovillians, Newcomers, and Guests. Several businesses and restaurants engage with the idea of a “gift economy” in which customers pay what they feel they can as a “gift” to cover the costs of the next person.

The most highly visible outlet for this gift economy is the Por Tous Distribution Centre, open only to Aurovillians and sourced by local farms, tailors, bakeries, and food processing units. Here, Aurovillians pay a set amount each month for membership to the store. In exchange for the payment, they can select items they need from the store without cost. Membership also includes a medical insurance plan. In this case, perhaps due to the care taken in building the Auroville community, the “tragedy of the commons” (Hardin 1968, p. 1243) is proven false. Several restaurants, including Solitude, Indus Valley, and Aurolec also use local food and a gift economy to foster a sense of community within Auroville. The natural cycle of food production in Auroville filters from farms to food processing centers, to local stores, to local consumers. These consumers include Aurovillians, Newcomers, and Auroville Guests – though not villagers, who do not possess the means to shop in many Auroville stores.^{xi} This food system is continually maintained and developed by Aurovillians, who are inherently committed to enhancing systemic sustainability for years to come.

The development and practice of this system appears to be remarkably sustainable within a “hybrid” place connected to the rest of the world by continually arriving Newcomers and Guests (Massey 1999). However, the sociopolitical factors limiting participation in the local foods movement also dictate that actors must actively transcend boundaries to neighboring villages in order to avoid charges of elitism or defensive localism. Auroville’s vision statement articulates its desire to be: “the city the Earth needs, [. . .] the hub of a thriving bioregion in which *people of the surrounding villages* will share in the material, cultural, and spiritual wealth

of Auroville” (emphasis added) (Auroville 2008). The question necessarily emerges: have local foods projects developed that work to shift hegemonic power relationships with nearby villages? Although Auroville’s local foods movement is for the most part focused on work within the ecovillage, several notable projects have materialized that fulfill this role negotiating the margins between Auroville and surrounding villages.

Water Harvest, for one, has begun to develop an ecological farming project that promotes sustainable agriculture in Tamil villages (Auroville 2008). As in much of the developing world, government subsidies have led the Tamil Nadu region to embrace an industrial agriculture model dependent on large amounts of pesticides, fertilizers, and water. Water Harvest offers an alternative model, working with progressive Tamil farmers in the area to promote organic farming and permaculture. The organization has formed a network between experienced Aurovillian organic farmers and interested Tamil farmers, offering training, technical advice, inspections, and a guaranteed market for organic produce (Auroville 2008). This initiative works across the divide between Auroville and the surrounding villages to promote sustainable agriculture in an open and ecumenical fashion.

The Botanical Gardens serves a similar role, working to preserve and reintroduce local varieties of tomatoes, capicum, peppers, eggplant, cucumbers, and squash, among others, in both Auroville and the greater Tamil Nadu region. In order to do this, the organization is developing an extensive seed saving project to recover lost heirloom seeds. Such open cultivar seeds can be collected yearly and used to plant the next season’s crop – as opposed to most genetically modified seeds which produce inviable hybrids and are protected by corporate patents. The Botanical Gardens’ local heirloom seed bank provides seeds to any interested farmers – Aurovillian or Tamil – at no cost. The reintroduction of heirloom seeds occurs within a

broader program attempting to develop sustainable local agriculture in place of transnational industrial agriculture. Similar to the Water Harvest initiative, the Botanical Gardens' seed saving project reaches out to all individuals and communities interested in promoting a more holistic food system, regardless of their location relative to Auroville's sociopolitical boundary. The project furthermore provides information, support, and resources with the goal of building a sustainable food system that extends well beyond the boundaries of Auroville to include the greater Tamil Nadu region.

A third initiative, occurring out of Sadhana Forest, works with a wide spectrum of Aurovillians, international Guests, and local villagers to promote critical reforestation of the region's tropical dry evergreen forest (Auroville 2008). The project, situated on seventy acres of land southeast of Auroville's city center, welcomes volunteers to participate in an ecologically sustainable lifestyle that includes veganism, ecological building, solar energy, peddle power, and composting toilets in addition to reforestation efforts (Auroville 2008). A community garden helps both to feed volunteers and to introduce them to permaculture farming techniques. In addition to attempts to increase local ecological sustainability, Sadhana Forest actively counters Auroville's tendency towards exclusion and elitism by forging connections to nearby villages. This work is intrinsically tied to the success or failure of reforestation efforts; in order for the fledgling forest to survive, neighboring Tamils must refrain from farming, grazing their herds, or otherwise destroying the young trees. They must share Sadhana Forest's vision for sustainable ecological change. Sadhana Forest thus actively collaborates with village leaders to develop a common vision of ecosystem sustainability and educates villagers about the importance of reforestation. From this analysis, Sadhana Forest emerges as a truly glocal project, interacting with the unique local, regional, and global influences that shape Auroville as a place.

The transformative projects taking place through Water Harvest, the Botanical Gardens, and Sadhana Forest begin to refute charges of unreflexive localism and geographic Apartheid brought to light by a geographical scalar analysis. Despite the work of these groups, however, Auroville's local foods movement for the most part remains contained within the sociopolitical boundaries of the ecovillage itself.^{xii} Simply, it does not yet possess the resources to shift the dominant paradigm of boundary and exclusion in Auroville. Despite the reach of the Water Harvest, Botanical Gardens, and Sadhana Forest projects, most villagers' sole participation in the local foods movement still is as hired help on Aurovillian farms. While this does offer them a substantially higher salary than working in their own villages – 3,000 to 4,000 rupees per month (Tokuda 2009) – it fails to truly involve them as equal participants in Auroville's movement towards sustainability.

I want to return to Born and Purcell's (2006) observation that "the agendas of those empowered by a given localization" mean that locally sustainable initiatives are not necessarily sustainable at broader scales and can actually disempower the larger community (p. 197). In the Auroville case, then, who loses? Where does the power truly lie? I submit that this question comes back to the initial privilege of those who have the resources to *choose* to live in Auroville. The foundation and maintenance of Auroville centers around this innate privilege: in order to continue to exist and foster its unique sense of community, Auroville must maintain the sociopolitical boundary that separates it from Tamil villages. In ultimate analysis, then, while food production within Auroville is incredibly ecologically and economically sustainable, it is only socially sustainable only at a limited scale – one that for the most part excludes the surrounding villages. This tendency towards exclusion can be tempered; but only if initiatives similar to those of Water Harvest, The Botanical Gardens, and Sadhana Forest continue to

emerge, actively bridging the ecovillage's sociopolitical boundary to develop a more globally sustainable food system.

The final issue I engage with in relation to Auroville is the presence of translocality. I return to the question posed earlier: To what extent are translocal connections present in different locales? How does the presence or absence of translocality influence various local foods movements? Although Auroville's local foods movement does need to continually evolve to become more sustainable at regional scales of analysis, it presents an impressive degree of translocality. As noted above, Auroville was founded as an "international city" in the pursuit of "human unity" (Auroville 2008). Thus, there exists a unique dynamic in Auroville as individuals from incredibly diverse locales come together to form a new community based on common values of holistic sustainability. The plethora of multinational, multicultural, and multi-ethnic actors brings together a diversity of thought and belief within this small township. Similarly, the constant flow of Guests and volunteers – which reaches up to 3,600 during the winter season – brings an influx of new ideas and knowledge. Their presence supports local farms and food production by increasing volunteer labor, facilitating exchanges of ideas and support, and raising the number of consumers eating and purchasing locally produced food.^{xiii}

Another key aspect of Auroville's translocal nature is its connection to the Global Ecovillage Network. GEN facilitates a "geographical politics that positively weds agendas in one place to those in myriad others," by connecting ecovillages throughout the world with one another (Castree 2004, p.135). Thus, Aurovillians are continually influenced by this awareness of localities outside their own, as will be discussed in Chapters 4 and 5.

Ultimately, I would argue that Auroville is a unique example of translocal connections despite an insular conception of place and local identity. In the future, these translocal

connections may converge with local initiatives to provide the reflexivity necessary to redefine Auroville's relation to nearby villages and therefore enable it to become more socially sustainable. As can be seen from the above analysis, the local foods movement in Auroville can neither be championed as a perfect solution to ecological, social, or economic problems, nor be condemned as a simply isolationist movement that benefits only a select few. The reality is much more complex, illustrating a tightly interwoven amalgamation of failures and successes in forming group identity, developing sustainably, and building translocal connections both regionally and globally to escape the local trap.

The Twin Cities: a developing urban-rural exchange

As with many local foods movements in the United States, the Twin Cities campaign around local foods gained strength predominantly as a response to USDA codification of "organic." Here, I briefly introduce the Twin Cities Metropolitan Area before proceeding to analyze the unique contributions of its local foods movement to social movement theory. The Twin Cities, formally defined at the metropolitan areas of Saint Paul and Minneapolis, has a population of nearly 3.2 million people out of the total 5 million who live in Minnesota (US Census Bureau 2008). Surrounding these core population regions exists a "rippled terrain" that contains the second highest concentration of organic farms in the country and is highly adaptive for small, organic farmers (Conservation Minnesota 2008, p. 9). According to the Minnesota Department of Agriculture, there are 500 organic farms in Minnesota (Conservation Minnesota 2008); based on the Minnesota Grown Directory (2008) there exist 678 "local" farms, markets and garden centers (p. 1).

This reference to local begs the question: what is local? In Auroville the boundaries of locality are clearly defined; the Twin Cities poses a more difficult question. In this analysis, I follow the definition cited by most Twin Cities food system actors: any food produced within the

five-state area of Minnesota, Wisconsin, Iowa, North Dakota, and South Dakota (Twin Cities Natural Food Co-ops 2008).

The question of identity and elitism in the Twin Cities local foods movement leads to an interesting investigation of urban-rural webs of relations that involve both low-income groups and high-income patrons. Again, I ask: Who participates in the Twin Cities local foods movement? Is this group vulnerable to charges of elitism? I argue that while the growth of the local foods movement in the Twin Cities may have been initially catalyzed by an elite class of consumers, it is continually evolving to penetrate low-income “food deserts” (Sonnino & Marsden 2006, p. 193). The Twin Cities local foods movement is comprised of a diverse combination of local rural farms, urban food co-ops, sustainable agriculture organizations, and a broad range of consumers that patronize local businesses and buy locally produced foods. The vast majority of food produced for the local market is sold through three main avenues: urban co-ops, Community Supported Agriculture (CSA) programs, and farmers’ markets. In the Twin Cities metropolitan area, there exist eleven co-ops serving 74,000 members (Smith 2008), thirty-six CSA farms (Land Stewardship Project 2008), and eighty-one farmers’ markets (Minnesota Grown Directory 2008). These numbers are impressive; however, as has been noted by other scholars, co-ops, CSAs, and farmers’ markets tend to be patronized by consumers that are relatively racially homogeneous and possess higher incomes as well as higher education levels (Hinrichs & Allen 2008; Hunt 2007; Jarosz 2008).

The Twin Cities does exhibit an increasing range of community-based organizations working to provide locally produced foods to low-income and immigrant populations. Sisters’ Camelot works to redistribute the 8,000 pounds of fresh organic produce discarded by local co-ops each week. Food for Folk, operated through Augsburg College, purchases and prepares

weekly CSA boxes as meals for local homeless shelters and churches. Harvest for the Hungry provides a way for the Emergency Foodshelf Network to receive fresh produce from ten local farms. Numerous groups, including the University of Minnesota Extension Office, GardenWorks, and Youth Farm and Market work with local neighborhoods to start community gardens in low-income neighborhoods that can nourish families and increase food security. This burgeoning effort to provide locally produced, organic food in diverse socioeconomic communities reinforces the idea that “localization can foster social and gustatory exchanges that demand new receptivity to difference and diversity” (Hinrichs 2003, p. 34). Thus, although the main markets of locally produced food are predominantly available to a select group of consumers, there exists a steadily growing weave of organizations dedicated to extending this privilege to traditionally excluded others. From this analysis we can see that local foods movements in both Auroville and the Twin Cities must consistently erode their elitist bias and forge relationships to include members of all socioeconomic groups.

The dynamic urban-rural connection inherent to the Twin Cities’ local foods movement provides an interesting backdrop for examining the development of its alternative food network. I return to the question: How does place and identity influence the development of local food production? Because the Twin Cities presents such different participant identity, the issues raised in this section differ greatly from those in my prior analysis of Auroville. I argue that the vibrant urban-rural support network for local foods in the Twin Cities is one of the central reasons for this thriving movement. According to Jarosz (2008), local and alternative food networks “emerge from political, cultural, and historical processes, and they develop out of the *interactions between rural restructuring and urbanization* in metropolitan regions” (emphasis added) (p. 242). Given that the central actors involved in local food production, distribution, sale, and consumption exist

across this rural-urban divide, any analysis of power relationships in the Twin Cities must necessarily take this dialectic into account. Here, I briefly sketch the role of urban food co-ops, farmer networks, and NGOs in creating this complex interconnection between the city and the country.

Urban food co-ops provide one of the most consistent outlets for locally cultivated produce. In the Twin Cities, the eleven co-ops have connected with one another to form the “Twin Cities Natural Foods Co-ops,” and strengthened ties to local farms – including ten local produce farms,^{xiv} nine natural meat producers,^{xv} and ten dairy farmers^{xvi} (Twin Cities Natural Food Co-ops 2008). Likewise, local organic farms have formed their own internal informational and support networks that help to ensure complementary production, markets for produce, and access to agricultural techniques. These extensive internal connections between local producers, distributors, and consumers have true transformative potential. According to one scholar, “social capital, as embodied in horizontal networks of civic engagement, bolsters the performance of the polity and the economy” (Putnam 1993, p. 181). The dynamic interface between Twin Cities’ farms and co-ops, based on Putnam’s analysis, builds social capital as well as local economic performance – a fact indicated by the \$120 million per year spent by local consumers at Twin Cities’ co-ops (Smith 2008). Clearly, as Jarosz (2008) notes, the urban-rural exchange “contributes both economically and politically to the development and emergence of AFNs.[Alternative Food Networks]” by instigating consumer demand for sustainable agriculture and local foods. (p. 242).

In addition to the innovative work towards sustainability occurring through local farms and co-ops, community development organizations play a crucial role in catalyzing the growth of a conscious, reflexive local foods movement. One such organization, the Land Stewardship

Project (2008), plays a three-part role, simultaneously nurturing local farmers, restaurants, and consumers. Its projects include increasing the variety and volume of locally produced food in restaurants, stores, and institutions by connecting growers to these markets; publishing a 29-page Stewardship Food Directory that provides consumers with a list of farmers and retailers marketing a variety of organic products; and providing a CSA directory that helps to connect urban patrons with rural farms. Similarly, the Heartland Food Network (2008) encourages collaboration between restaurants, catering companies, and local family farms as a way to facilitate increased consumption of local food.

As can be seen from the above evidence, this “shared goal of promoting food and agricultural systems that are environmentally sound, economically viable, and socially just,” held by local farms, co-ops, NGOs, and consumers alike, “seeks to foster partnerships that bridge the urban-rural interface” (Campbell 1997, p. 37). The development of connections between many critical actors across the rural-urban divide has provided the foundations for a vibrant local foods movement in the Twin Cities. A dual country-city focus on eliminating the elitist basis of the local foods movement, moreover, leads the movement to have a transformative potential for tangible social change in the Twin Cities. However, I follow DuPuis and Goodman (2005) in contending that for this movement to remain dynamically sustainable, it must incorporate “outward-looking connectivities and translocal ties [that] engender and characterize a progressive politics of place” (p. 368).

Thus, thirdly, I turn to the question: do translocal connections exist within the Twin Cities local foods movement? In contrast to Auroville, the Twin Cities does not inherently experience a continual flux of translocal perspectives on food and urban agriculture. However, I point to the use of Internet resources to create translocal connections as an avenue that can be

developed more extensively in the future. Currently, the local foods movement in the Twin Cities is clearly linked to similar movements across the nation through an emerging web of Internet resources.^{xvii} Based on an informational pamphlet published by Slow Food Nation entitled “Cultivating the Web: High Tech Tools For the Sustainable Food Movement,” e-activism has brought about an “unprecedented level of citizen involvement” (Slow Food Nation 2008, p. 16). This pamphlet points out that Internet resources are a unique way for the sustainable agriculture movement to “[Get] Organized,” “[Make] Connections,” “Grow Visibility,” and “Create Social Change” (Slow Food Nation 2008, pp. 18, 21, 26, 16). Deborah Kane, vice president of Food and Farms, says: “We want to demystify the process of building regional food networks at all scales” and, as artist Fritz Haeg points out, the Internet provides the means for “Issues of food, energy, water, community, and the environment [to] [go] from marginal discussions among environmentalists to mainstream topics of interest in the media” (Slow Food Nation 2008, pp. 21, 25). The Internet represents a unique media for Twin Cities activists to connect to one another and to others outside their locale. Although translocality is one area that needs to be strengthened within the Twin Cities local foods movement to avoid the local trap, I contend that emerging connections to other local foods activists in the United States provide critical avenues for this to occur.

Ultimately, in the Twin Cities – as well as Auroville – we see an emerging local foods network that cannot be condemned or celebrated. Rather, it must be highlighted for its unique innovations and pitfalls in order to develop an understanding of theoretical complexity in emerging local foods movements.

Southern Africa: grassroots translocalism

Southern Africa represents a unique contrast to Auroville and the Twin Cities as a location where local foods has become a truly grassroots movement in response to urban and

rural food security issues. This case study encompasses work being done in four major areas in Southern Africa – Johannesburg, South Africa; Cape Town, South Africa; Durban, South Africa; and Harare, Zimbabwe.^{xviii} To begin, I briefly introduce the organizations in each area. In Johannesburg, two organizations – GreenHouse Project and Sebokeng Farm – work to increase food security in their respective communities.

GreenHouse Project, located in an inner-city park, has developed extensive permaculture gardens around this site that are maintained by local community members and children from a local preschool. In addition to providing food for members of the GreenHouse Project and the local community, these gardens serve as a demonstration site for people in neighboring townships to learn how to grow their own food. Sebokeng Farm complements GreenHouse project, working on land procured from the government fifty kilometers outside Johannesburg. This growing community farm provides sustenance for members in addition to a small income. Oceanview is a township created thirty years ago through forced resettlement and located just outside of Cape Town, 1260 kilometers west of Johannesburg (Stilger 2008). Here, formerly unemployed township women who successfully created a fisheries micro-industry are now turning their attention to growing food as a means to supplement their income. In Durban, INK – so named for its work in the three poorest black townships, including *Inanda*, *Nzuma*, and *Kwamashu* – has helped to create sixty garden plots that range in size from backyard plots to small farms (Stilger 2008). Finally, on the outskirts of Harare, Zimbabwe, Kufunda Learning Village promotes permaculture techniques in local farming communities.

Let me turn to with my first question: Who participates in the Southern African local foods movement? Is this local foods movement vulnerable to critiques of elitism? As I answer

these questions, I also analyze how a common identity has been constructed in post-Apartheid Southern African social movements.

The identity of the organizations in this case study and their innovative local foods network reveal an incredible story around local initiatives and the power of grassroots movements. More than either of my other cases, I contend, Southern Africa truly represents a case in which alternative food networks are *not* a “bourgeois phenomenon” (Sonnino & Marsden 2006, p. 193) but are instead an absolute necessity for local and rural populaces. Here, I provide additional evidence to support this claim through a description of efforts within these four central areas, attempting to show how their identities have been “constructed, not given,” as part of intentional projects towards community empowerment (Castree 2004, p. 142).

Four of the organizations in this case study – GreenHouse Project, Sebokeng Farm, the Oceanview Fisherwomen, and INK – have emerged in the unique political, social, and cultural climate of post-Apartheid South Africa. This has critical implications for their identity and work with local populaces. They confront what Paulo Freire (1982) identifies as internalized oppression, or a self-deprecation that derives from the oppression and abuse blacks suffered at the hands of the Apartheid government and social climate. In order to overcome this intrinsic self shame and questioning, therefore, even grassroots movements must account for the fact that: “while no one liberates himself by his own efforts alone, neither is he liberated by others” (Freire 1982, p. 53). This pedagogy of the oppressed manifests in power dynamics between South African blacks and whites as well as in gendered relationships between women and men. As one of the Cape Town fisherwomen told me, “My husband used to beat me and I thought I couldn’t do anything; now I fish and I garden and I bring home the money. I know I don’t need him” (Charlene 2008). The continual battle against both internalized and externalized subjugation

represents an important theme that repeatedly resurfaces in the Southern Africa case. Thus, both the identity of the organizations involved and the people that they work with to cultivate local food can be shown to be “an outcome of engagement with supralocal discourses and relations,” particularly the legacies of Apartheid as they manifest in racial and gender relationships (Castree 2004, p. 142).

Although Kufunda, located outside Harare, has not been affected to the same extent as South Africans by the discourse of Apartheid, racial tensions and segregation have nonetheless affected the populace. In Zimbabwe, the predominantly black population endured subjugation and disenfranchisement under white colonial control until independence in 1980 (Stilger 2008). In this colonial system, white settlers acquired the most fertile land in the country for export agriculture and treated the local population as second-class citizens, depriving them of land which locals could have used to grow their own food (Stilger 2008). Due to this common history, any successful movement must inherently address the effects of South Africa and Zimbabwe’s legacy of colonialism and oppression. In this case, “Given the power-geometries that have rendered them marginal [. . .], passivity is simply not an option” (Castree 2004, p. 150).

Thus, rather than being plagued by elitism, the Southern Africa local foods movements are plagued by the very opposite: self-oppression and a lack of confidence that reflects the movement’s truly grassroots nature. This is one case in which the local foods movement is highly embedded in local community and is perceived as a way to “connect all actors in the food system in a sensible and sustainable way that sustains the community, is healthy for both the people and the environment, and returns control of the food system to local communities” (Hendrickson & Heffernan 2002, p. 362). The two-fold marginalization of South Africans – both as victims of harshly discriminative Apartheid policies and as a citizens of a peripheral country

in the world economy – furthermore mean that these local foods movements originate out of a pressing need for food security. Given the above anecdotes and evidence, it appears that this Southern African local foods movement is truly grassroots and represents a “revalorization” of urban and rural populaces rather than a bourgeois phenomenon (Sonnino & Marsden 2006). In this case, locality is a means for a predominantly black populace to regain control of their lives in the post-Apartheid era.

In the Southern African case, the development of the local foods movement proves to be an interesting issue that raises completely different concerns than either the Auroville or Twin Cities cases. Again I ask: how do place and group identity effect the development of the social movement? In Southern Africa, this question is closely tied to issues of multi-scalar, or glocal, power dynamics. Southern Africa presents a landscape deeply penetrated by international aid initiatives and the influence of multinational food conglomerations. Here, more than the other case studies, it is essential that: “Emerging strategies do not ignore the power of external market forces and private corporations, but try to change the way the local economy relates to those forces” (Campbell 1997, p. 38). I contend that as semi-peripheral countries in the world economy South Africa and Zimbabwe have the potential to: “challenge key power relationships” by “employ[ing] community organizing strategies to alter power, drawing on resources in ample supply: credibility, personal relationships, and a shared commitment to place” (Campbell 1997, p. 42).

It is undeniable that multinational food suppliers possess an extensive monopoly over food choices, especially within low-income communities. However, this dependence on an external market has led to increased interest in efforts to develop food security. In Johannesburg, the GreenHouse Project’s successful barrel gardening project – which provides the material to

construct a small vertical garden for 35 Rand (approximately US \$3.50) – illustrates local interest in alternative means to obtain food (Stilger 2008). Similarly, local involvement in urban gardening schemes in Cape Town and Durban reflect this desire to increase self-sustainability and disconnect from the global food monopoly.

Kufunda represents a unique case in which the “battlefield of knowledge, authority, and regulation” is fought not between grassroots movements and transnational corporations, but between localities and the government (Marsden 2004, p. 151). Kufunda and other local initiatives must be careful not to attract the attention of the volatile Mugabe government. Although personal connections to a critical figure in this government have provided some protection from governmentally sponsored harassment and violence, Kufunda nonetheless exists in a climate of severe inflation and inescapable scarcity. As Robert Stilger (2008) observes, “The obstacles here [in Zimbabwe] are getting seeds, water on the crops, making the soil more nutritious. They are real, practical obstacles in getting things to grow.” This situation clearly unveils the illogical nature of a system that creates dependence on a central government and external sources of food within a predominantly rural population. In order to survive, individuals and communities have had to create alternative food production systems – a project that Kufunda has been supporting in neighboring villages for the past six years (Kufunda 2008). From the above evidence provided by Southern African local foods movements, it appears that “Community-controlled economic development can enable [local foods] movement[s] to: hold power accountable, justify environmental and social agendas, and develop strong, accountable leadership” (Campbell 1997, p.37). The Southern African case thus illustrates a unique glocal dynamic that requires local foods movements to develop based on an intricate understanding of local and global phenomena.

The last, and perhaps most pertinent, issue I would address in relation to local foods movements in Southern Africa is the idea of translocality. The Southern African organizations exist as part of a translocal network across five continents that connects them to one another and to other localities as a means to share innovations, support, and funds. Here I more thoroughly detail these connections and ask: How has translocality enabled Southern African organizations to become more diversity-receptive (Hinrichs 2003) and reflexively aware of their actions? Do these translocal connections allow them to escape the local trap (Born & Purcell 2006)? I contend that the emergence of the transregional network between Johannesburg, Cape Town, Durban, and Harare has led not only to a more reflexive conceptualization of the Southern Africa local foods movement, but also provided critical resources and support. Examples of the role and power inherent to this network include extensive exchanges of people and ideas: the sharing of urban gardening techniques, the emergence of “a radically different way of living and economics”, and the mutual sharing of “stories, experience, and knowledge” (Mokine 2008, pp. 1, 2). According to Mabule Mokine (2008), a senior member at GreenHouse Project, the goal of this translocal exchange is: “to share experiences on sustainable food production, nutrition and related greening issues while deepening our practice of the Art of Hosting techniques [facilitation techniques] and knowledge development and exchange through practical work that forms part of the translocal network in the regions” (p. 1). As can be seen here, more than in Auroville or the Twin Cities, “ ‘local’ identities are partially crafted out of an emergent translocal one” (Castree 2004, p. 154).

In addition to intraregional connections, the Southern Africa organizations are also connected to permaculture and local foods initiatives in Yarmouth, Nova Scotia; Montreal, Quebec; Portland, Oregon; Oaxaca, Mexico; Axladitsa-Avatakia, Greece; Udaipur, India; and

Nasik, India (Berkana 2008). These connections, orchestrated through The Berkana Exchange, allow for exchanges of support, resources, and ideas. In this framework, “production, reconfiguration or contestation of particular differentiations, ordering, and hierarchies *among* geographical scales” enables the creation of distinctively reflexive practices (Brenner 2001, p. 600). It is clear that the local foods movement in Southern Africa has embraced the notion of “translocal solidarity” (Castree 2004, p. 136), and “affirm[ed] a place-based politics where local needs are pursued by constructive engagement with translocal forces and non-local constituencies” (Castree 2004, p. 150). As is revealed by the above analysis, this local foods movement manifests in a unique way that is shaped by the unique political, economic, social, and ecological characteristics of Southern Africa. Once again, we see a social movement that confronts a distinctive complement of resources and challenges within its locality and defies over-simplistic dismissals or celebrations of localism.

Throughout this second part of the chapter, I have attempted to define local foods movements in their full complexity and have traced three central themes raised by a geographical place-space lens – place and the formation of group identity, sustainable local foods movement development, and the importance of translocality – through my three case studies. In conclusion, I ask: How do these themes manifest in distinct, practical locales? What insights do this geographical perspective yield in a study exploring the potential for local foods movements to affect global social change toward sustainable food production? I found that the identity formation in local foods movements depends both on common values and on the participant composition of each movement. In studies of Auroville and the Twin Cities, it became evident that elitist composition is a characteristic that local foods movements must constantly fight to avoid. Secondly, I concluded that local foods movements’ development reflected the unique

glocalization – or the mixture of local and global influence – in each place. While the local foods movement in Auroville developed organically based on city's original mission statement, the Twin Cities illustrated a concerted effort by consumers, food co-operatives, and local farmers across the rural-urban divide, and Southern Africa exhibited unique grassroots mobilization but faced tenuous political situations and low funding. Thirdly, I found that translocal connections, while critical to developing a reflexive (DuPuis & Goodman 2005) and diversity receptive (Hinrichs 2003) localism, required concerted and continued effort to develop relationships with others in diverse locales. Southern Africa provided a particularly strong example of the potential for these connections, Auroville exhibited fairly well developed translocality, and the Twin Cities showed a translocal awareness in early stages. As can be seen from this analysis, the geographical theories of Watts, Massey, Harvey, and Castree clearly provide valuable insight into local foods movement studies and provide a foundation for discussing how local foods systems can evolve to affect sustainable social change.

Conclusion

Let me return here to the central question of this thesis: Can local foods movements contribute to holistic sustainability – ecological, social, cultural, and economic – in local and translocal communities? I submit that the intersection of the above case studies and the geographical literature on grassroots social movements provides a starting point to begin to answer this query.

Both scalar theoretical frameworks and practical analyses suggest that local foods movements must include ecological, economic, and social considerations within their vision. As noted in Chapter 1, this means that local foods movements must stress shorter food-miles, venues that connect local producers and consumers, small farms using sustainable farming techniques, and access to locally produced food available to consumers across the socioeconomic spectrum.

The case studies further emphasized this point, illustrating that local foods movements in practice typically exhibit strength in one of these areas. For example, Auroville was particularly ecologically sustainable, the Twin Cities showed economic sustainability across the rural-urban divide, and Southern Africa was characterized by social sustainability. In order for each movement to become holistically sustainable, however, they need to evolve to incorporate all facets of sustainability into their practices. The case studies in this paper and other local foods systems must develop based on the distinctive glocalization – or mixture of global and local power structures – within each locale (Massey 1999). Chapter 4 will respond to this idea of glocal development, illustrating how local foods systems can cultivate internal growth and change. In addition, local foods movements can be supported by translocal connections to become more sustainable – an idea introduced in this chapter by Harvey and Castree. Translocal connections can lead to exchanges of support, innovation, and resources – as discussed in Chapter 4 – that enable local foods movements to cultivate more sustainable practices within their own localities. Translocality can moreover create a reflexive localism through which local foods movements can conceptualize their impact on and relationship to other locales. As local foods systems become reflexive at a broad range of geographical scales, they not only transcend Born and Purcell's (2006) local trap but are also able to facilitate the emergence of global social change. The power of translocal networks to affect change will be discussed in Chapter 5.

Throughout this chapter, I have used Auroville, the Twin Cities, and Southern Africa to illustrate that local foods movements are a phenomenon that can develop in radically diverse places and at different scales. I have also attempted to show that each local foods system encounters challenges and draws from resources that vary based on the locale in which they emerge. Thus, in the next two chapters, I respond to the issues of identity, glocal development,

and translocality raised by this geographical critique of local foods movements. In order to accomplish this, I theoretically conceptualize the means by which local foods systems evolve both internally and externally to cultivate a more holistic sustainability.

Chapter Four – Living Autopoietic Local Foods Systems

If one has a new way of thinking, why not apply it wherever one's thoughts lead to? It is certainly entertaining to let oneself do so, but it is also often very illuminating and capable of leading to new and deep insights. – Frank Oppenheimer, quantum physicist^{xix}

Introduction

Oppenheimer's words provide a novel place to start as I return to my central question with a fresh perspective. Again, I pose the question: How can local foods movements create sustainable global change? In the previous chapter, I drew on a geographical perspective to critique local foods movements as grassroots social movements. This approach led me to highlight weaknesses in three different case studies that had no easy solutions or remedies. Using a place-space lens, I identified Auroville as a case where boundaries must be continually renegotiated to temper tendencies towards elitism and exclusion – a criticism at once harsh and deeply relevant. I also argued that actors in the Twin Cities need to actively fight to reach across class divides both locally and translocally in order to be truly socioeconomically sustainable. Finally, I revealed my concern about the powerful economic and political interests that local foods movements in Southern Africa rise up against as they attempt to develop new alternatives. Such analyses open up a wide range of practical, moral, and intellectual dilemmas that cannot be left unaddressed if local foods movements are to create social change. The question becomes: When analyses bring to light confounding obstacles and complex criticisms, how do local foods movements change to become more sustainable? Where can actors start when confronted with such intricate problems?

In this chapter, I further investigate the geographical theories introduced in Chapter 3 using what has been variously identified as a living systems perspective (Capra 1996, Capra 2003, Wheatley 1999), co-evolutionary interpretation (Pugliese 2001), and network analysis approach (Puliese 2001; Sonnino & Marsden 2006) to discuss *how* local foods movements form

a common identity, develop sustainably in glocal places, and incorporate translocality. I follow Pugliese (2001) in contending that this living systems perspective allows me to “develop a holistic understanding of processes occurring in a specific context,” and “enables [me] to capture a dynamic perception of the continuous, unpredictable transformation undergone by the various components of the analyzed system and to explore the complexity of their multiple interactions” (p. 114). Simply, this approach allows me to investigate how natural systems can inform our approach to human social systems and, by extension, social movements. In what follows, I use this tack to define and analyze local foods movements as living systems. This discussion serves to identify how local foods systems can change *internally* to become less elitist, more glocally sustainable, and increasingly translocally oriented. In Chapter 5, I then proceed to discuss how local foods systems can evolve *externally* by developing translocal connections and ultimately create sustainable global change. This approach is meant to transform the way we view social movements and provide an understanding of local foods movements noted to be lacking in the current literature (DeLind 2006, Nabhan 2002; Smith & Mackinnon 2007).

In order to understand how local foods movements originate, I follow Born and Purcell (2006) in unraveling both their *end* goals and the *means* by which they endeavor to achieve these goals. Furthermore, to comprehend how local foods systems grow and evolve, I attempt to show how their means continually change to more efficiently meet the system’s end goals. Living systems theory – and in particular autopoietic theory, introduced below – offers a unique perspective through which local foods system’s changing means and ends can be comprehended.

The term autopoiesis is derived from the Latin roots *auto*, or self, and *poiesis*, or making. Autopoiesis thus literally means *self-making* and is used by Maturana and Varela (1980) to refer to “a network pattern in which the function of each component is to participate in the production

or transformation of other components” in the living system (Capra 1996, p. 208). Put simply, autopoiesis refers to the pattern of relationships between components of a living system.

Autopoietic systems remain organizationally closed (i.e. relationships between the components are continually maintained) but energetically open (i.e. flows of energy in the form of light, resources, or information can continually enter and circulate within the living network). These energy flows, circulated based on the living system’s pattern of relationships, allow autopoietic systems to continually reconstitute or *remake themselves* – an idea implicit in the term’s literal meaning. Simply, this means that the system’s identity remains the same, but the way it expresses this identity continually changes. This reconstitution additionally means that living autopoietic systems will continually adapt to their environment. Capra (1996), drawing on the work of Maturana and Varela (1980), identifies autopoiesis as the organizing pattern of life.

Thus far, I have defined autopoietic systems as: (1) energetically open but organizationally closed, (2) continually reconstituting, and (3) environmentally adaptable. Gail Fleischaker (1990) further develops this definition by stating that autopoietic systems must be “self-bounded, self-generating, and self-perpetuating” (In Capra 1996, p. 208). According to these qualifications, *self-bounded* means that the system must include “the creation of a boundary that specifies the domain of the network’s operations and defines the system as a unit” (Capra 1996, p. 98-99). *Self-generating* specifies that all components within the system – including the boundary – must be produced by processes within the network. *Self-perpetuating* refers to the idea that generative processes continue over time, continually maintaining the system’s identity even as it changes structurally in response to environmental influences. I will use Fleischaker’s three characteristics to frame my discussion of local foods movements as autopoietic systems.^{xx}

Although using this understanding of living systems to study a social system – such as a local foods system – may seem unorthodox, it is in fact justified by one of the primary authors of autopoietic theory. Varela (1981) says that while “the concept of a network of production processes, which is at the very core of the definition of autopoiesis, may not be applicable beyond the physical domain ... a broader concept of ‘organizational closure’ can be defined for social systems” (In Capra 1996, p. 212). Essentially what this means is that we can use the organizing principles of ecosystems and metabolic systems – as described by autopoietic theory – to help us understand social systems. However, although the concept of a self-evolving network can be applied to social systems, the material components and links within the system clearly differ between metabolic networks and local foods networks. Thus insights derived from the study of living systems cannot be taken literally, but instead must be used to define a theoretical understanding of how such systems change and evolve.^{xxi} As Capra (2003) says,

A social network ... is a nonlinear pattern of organization, and concepts developed in complexity theory, such as feedback or emergence are likely to be relevant in a social context as well, but the links of the network are not merely biochemical. Social networks are first and foremost networks of communication involving symbolic language, cultural constraints, [and] relationships of power. (71)

By using a living systems approach, I believe that I can illustrate the pathways local foods systems follow as they generate internal change and show how this connects to their identity formation, glocal development, and translocal connections. Thus I ask: How can we use a living systems theory of autopoiesis to reconceptualize our perceptions of how and why change occurs *within* local foods systems?

Self-Boundary: Defining Social Movements by Meaning and Inclusion

Self-bounded autopoietic systems, according to Capra (1996), create a boundary that defines the living system and separates it from the environment. In social systems, according to sociologist Niklas Luhmann (1990), this boundary manifests as a shared sense of meaning and

values that is created through continuous conversation and interaction. The local foods system, as a specific type of social system, exhibits the creation of two distinct boundaries: (1) an ideological boundary based on common values and vision and (2) a physical or material boundary that determines who is able to participate. Here I see the first, ideological boundary as akin to what Born and Purcell define as the end goal or shared vision of a local foods movement. The second, material, boundary of the system dictates local foods movement's composition – who is *able* to participate – and ultimately determines whether the system is elitist. Thus using living systems theory to analyze both how these boundaries form and how they change is crucial to a discussion of whether local foods movements can create sustainable social change.

I first explore ideological boundary formation or, simply, the creation of shared meaning, values, and vision within a system. As I discussed in Chapter 3, group identity in social movements must be articulated in a way that reflects both the unity and diversity of participant identity (Castree 2004). Moreover, due to the inherent complexity of group identity, how a communal identity is constructed and how people assuming this identity are “interpellated into political projects” are crucial issues to explore (Castree 2004, p. 142). How does identity form in an autopoietic social system? According to Capra (2003), continuous conversation and interaction between individuals within a social system generates a shared sense of meaning. Moreover, it is: “through this *shared context of meaning* [that] individuals acquire *identities* as members of the social network, and in this way the network generates its own boundary” (emphasis added) (Capra 2003, p. 72). In order to understand how a coherent group identity forms within social systems, then, it is essential to grasp what underlying meaning or vision creates the system's boundary. In other words, to comprehend local foods movements as living systems, we must determine if they possess some sort of common meaning, vision, or values.

Let me return to my original definition of local foods movements, introduced in Chapter 1 as:

A collaborative effort to build more locally based, self-reliant food economies ... in which *sustainable* food production, processing, distribution and consumption is integrated to enhance economic, environmental and social health of a particular place. (emphasis added) (Feenstra 2002, p. 100)

I submit that the fundamental vision that both creates the boundary of local foods systems and generates common identity is *sustainability*. This is an undeniably broad term that changes with respect to locale and context – a characteristic also intrinsic to local foods movements, as illustrated by my three case studies. However, just as Feenstra (2002) creates an overarching definition of local foods movements, a basic definition of sustainability can also be clearly established. Lester Brown (1981) of the Worldwatch Institute defines a sustainable society as: “one that satisfies its needs without diminishing the prospects of future generations” (In Capra 1996, p.4). Likewise Pugliese (2001) says that sustainability implies that: “the intrinsic diversity and complexity of ecological and social systems should be preserved in order to increase or, at least, not to undermine their stability and erode their resilience” (p. 113).

Drawing from these scholars, I contend that the end goals of local foods movements can be identified as an attempt to create a more ecologically, economically, socially, and spiritually sustainable place through holistic approaches to food production, processing, distribution, and consumption. This common belief in sustainable practices provides a rallying point for local foods systems, begins to establish a common identity, and constructs a shared systemic boundary. A belief in sustainability provides a genesis for individuals to work together for social change based on similar lived experiences and a shared grounding in place. The meaning of sustainability is intrinsically different in various localities and must be continually renegotiated as local foods movements confront complex issues – such as those seen in Auroville, the Twin

Cities, and Southern Africa – a fact I will return to later in this chapter. However, the concept of sustainability as a shared vision provides both a way to understand how “coherence is rendered” (Castree 2004, p. 142) and how boundaries are formed in local foods systems. This will prove invaluable in developing an understanding of how change occurs within local foods systems as they continually attempt to reach what I define as end goals of ecological, economic, social, and spiritual sustainability.

The second form of boundary defining local foods systems is a material boundary – one that determines who is able to participate in the movement. This is a critical consideration as we look at charges of elitism in local foods movements and attempt to move towards more socioeconomically inclusive systems. Let me first look at a negative control, i.e. a system that *is* characterized by elitism – such as Auroville or the Twin Cities, to some extent. In this sort of system, meaning is defined solely by monetary value and community boundary is defined by the limits of monetary exchange. Simply, individual empowerment can only be achieved through the exchange of capital; identification with local foods must take place through the consumption of locally cultivated products. Hinrichs and Allen (2008) discuss this type of system – which does undoubtedly represent many local foods movements. They say, “To the extent that such campaigns emphasize individualized consumption choices and actions, rather than collective political action, they can reduce the salience of *social* justice for consumers” (Hinrichs & Allen 2008, p. 347). In a capitalist local foods economy consumers can become complacent, believing buying ethically is enough to remediate their social or ecological excesses. When the boundary of local foods system is defined by a common value placed on money, participants are not obligated to proactively change their own lifestyle, they only need access to funds. Hinrichs and Allen (2008) insightfully point out that in this type of local foods system, “the individual

consumer purse – whether on its own or aggregated with others – has become the designated route to a better world” (p. 348). In such a model, access to capital defines the boundary of the local foods system. Elites are materially able to participate, but the poor are excluded. The question thus becomes: what comprises the material boundary of a *non-elitist* local foods system?

I contend that the material boundary of a non-elitist food system must be defined by a shared concept of gift economy. Gift economy, as we saw in the Auroville case study, is: “an economic system in which goods and services are given freely, rather than traded” (Nehta 2007). At the most basic level, gift economy requires a paradigm shift in the way we view economic interactions. Whereas in a market economy wealth is increased by hoarding, in a gift economy wealth is increased by giving. Simply, as gifts circulate freely within the system’s economy wealth is generated both through the gifts themselves and in the form of increasingly strong connections and relationships. This idea of a developing gift economy, though emphasized most in the Auroville case study, is also evident in the Twin Cities and Southern Africa. In the Twin Cities, organizations such as Sisters’ Camelot, Harvest for the Hungry, Food for Folk, and Youth Farm and Market all engage in what could be termed a fledgling gift economy. Southern Africa’s “work for food” programs at the GreenHouse Project, Sebokeng Farm, INK, Oceanview, and Kufunda represent yet another form gift exchange can take. In order to truly cultivate a non-elitist material boundary in local food systems, these fledgling gift economies must evolve to become multi-scalar, exchanging both within and between localities.

Through these examples, we can begin to see the potential for a gift economy to promote social sustainability. When common value is placed on a true gift economy, the material boundary of a local foods system begins to open to all those who wish to participate. However,

cases like Auroville and the Twin Cities prompt the question: How can the material boundaries of a gift economy be drawn so they are not exclusive or elitist at different scales of analysis? Additionally, despite the fact that some local food systems *do* exhibit a material boundary defined by gift economy principles, the fact remains that many local foods systems remain bounded by market economic exchanges. This exclusionary tendency in some self-bounded systems needs to be taken into consideration as we continue to analyze the ability of local foods systems to affect sustainable social change. The question thus becomes: *How* can local foods systems change to become more sustainable? In the following sections, I apply autopoietic theory to discern how local foods systems engage in self-generation and self-perpetuation. Self-generation and self-perpetuation, as introduced above, illustrate the means by which living systems grow and evolve. Drawing on Fleischaker, I attempt to discern how local foods movements can change to become more socially, economically, and ecologically sustainable.

Self-Generation: Developing Social Movements through Communication

In the previous section, I discussed how meaningful boundaries are created by living systems such as local foods systems and other social systems. The questions of how these living systems continually generate both themselves and their boundaries, however, remains unanswered. In the last chapter, I used Massey's (1999) theories to analyze the role of place in development of different local foods systems. From this discussion it became clear that how each system developed, or put differently, how it continually regenerated itself, was based on the distinct constellation of global and local relationships that existed in each place. In Auroville, this meant that the local foods movement evolved predominantly within the physical limits of Auroville based on interactions between farms, food processors, food distributors, local non-profits, stores, restaurants, and consumers. The Twin Cities illustrated development that took place through a vibrant rural-urban exchange between farms, co-ops, farmers' markets,

restaurants, non-governmental organizations, and consumers. Finally, Southern Africa showed a case of local foods movements that developed between grassroots actors seeking alternatives to global political and economic powers. Clearly, each place brought together a unique constellation of actors acting within distinct networks and power structures. The interaction facilitated by such relationships between different components of local and global systems led conceptions of place and locality to be continually reframed. As Massey (1999) notes, place is defined by: “the sphere of juxtaposition, or coexistence, of distinct narratives” that exists within each locality (p. 21); thus grassroots social movements must develop to enhance a sustainability that is unique to their particular place.

According to Luhmann (1990), social interactions between the distinctive amalgamation of local and global actors can be seen as the self-generative elements of local foods systems. He says: “social systems use communication as their particular mode of autopoietic reproduction” (p. 3). It is essential to remember that in autopoietic theory reproduction does not necessarily imply growth – in the size of a local foods system, for example – it simply means that members of the system are connected to one another and continually maintain their pattern of organization and influence. Thus self-generation, in the case of local foods systems, refers to “networks of communication that are self-generating. Each communication creates thoughts and meaning, which give rise to further communications,” continually creating the autopoietic network (Capra 2003, p. 72). This constant dialogue and exchange of ideas throughout the network elicits either positive or negative reactions and thereby forms rich feedback loops.

As can be seen by a brief perusal of the academic literature, local foods movements are indeed characterized by a desire for transparency about food chains and increased face-to-face interactions between farmers and consumers (DeLind 2006; Hunt 2007; Jarosz 2008). In other

words, they place a high value on communication. This self-generative communication allows members of the network to continually influence one another's actions through a dynamic interchange based on the needs of the system's various members, including farmers, processors, distributors, consumers, and the land itself. These information loops have both practical and transformative potential. For one, they provide the fundamental communication necessary for actors to connect within a local food system. In a purely logistical sense, farmers must talk to one another, to food processors, to markets, and to consumers in order for the system to survive. At the same time, this communication has the potential to create transformative social change as the local foods movement endeavors to become more sustainable in place. As Wheatley (1996) observes: "For a system to remain *alive*, information must be continually *generated*" (p. 96). Communication between members of the local foods system, then, provides a means for these systems to continually produce new information and thereby re-generate themselves.

In addition to maintaining the system itself, Capra (1996) notes that a living system's self-generative capabilities must generate the system's boundary. In the case of local foods systems, as discussed above, both ideological and material boundaries are continually renegotiated based on shared vision and values. Because each place inherently contains different narratives, diverse relationships, and dissimilar physical characteristics, it makes sense that the visions of sustainability (i.e. ideological boundaries) and values of inclusion (i.e. material boundaries) also differ between places and must be continually renegotiated as local foods movements confront complex ethical issues – such as those highlighted in the three case studies. Hassanein's (2003) work around food democracy illustrates the potential for dialogue to generate practical approaches to conflicts over meaning and value within a self-defined system. Hassanein (2003) defines food democracy as: "the active participation of the citizenry ... and political

engagement to work out ... differences” in evolving local foods systems (p. 78). She moreover contends that this approach provides the “best hope for finding workable solutions to conflicts about the character and direction of the agro-food system” (Hassanein 2003, p. 78). Hassanein’s ideas of food democracy introduce a broader field of dialogue, conversation, and facilitation that has fundamental importance for the self-generation of boundary in local food movements. How can food democracy and other forms of facilitation self-generate the two forms of boundary discussed earlier?

Let me first focus on self-generation of local food systems’ ideological boundary formed by a shared vision of sustainability. Hassanein points out that definitions of sustainability are inherently theoretical; they cannot anticipate what it means *in practice* to develop sustainable food production systems. Similarly, Born and Purcell stress that a social movements’ end goals provide no information about the means by which this end goal is actualized. Defined goals of sustainability in local foods movements, therefore, cannot respond to fundamental conflicts over the meaning of sustainability in practice. What does sustainability encompass in a particular locale? Different actors inherently bring different ideas of how to develop social, economic, and environmental sustainability to light. These manifold conceptions of sustainability in practice moreover translate into nearly infinite ideas of necessary day-to-day practices and action. Hassanein (2003) says, “when values clash, there is no independent authority that society can meaningfully appeal to for a definitive resolutions of disputes” (p. 78). In other words, the system itself must continually regenerate its definitions of sustainability in practice – and therefore its ideological boundaries – by engaging in different forms of internal dialogue such as food democracy (Hassanein 2003).

The three case studies introduced in Chapter 3 provide a clear example of this. In Auroville a wide range of food chain actors engage together to develop ecologically sustainable practices from farm to fork. In the Twin Cities, exchange between diverse actors brings different voices to the table to continuously renegotiate the practice of building sustainable food systems. Southern Africa likewise demonstrates regional networks between the GreenHouse Project, Sebokeng Farm, the Oceanview Fisherwomen's Association, INK, and Kufunda that allow conversation to continually redefine apt means to achieve end goals of sustainability. The plurality of organizations engaged in dialogue around sustainable practice simply indicates the strength and resilience of local foods systems. As one organizer comments, "When you bring a diversity of farmers into the organization, ... it's not narrow-minded. It allows people to expand upon what they've done" (In Carnes and Karsten 2003, p. 176). This approach allows actors to confront immediate, practical concerns together as they develop means to reach end goals of sustainability. As heterogeneous participants come into conversation, the local foods system – as a living system – will retain its original vision of sustainability, but the meaning of sustainability *in practice* will change.

Self-generation of local foods systems' material boundaries is much the same. In order to challenge elitism in local foods movements, participants from diverse socioeconomic backgrounds must come into dialogue with one another around the issue of social sustainability. A simple awareness of the inherent elitist bias of most local foods movements, when coupled with reflexive dialogue to direct further action, can be influential. Such conversations have the potential to generate new ideas, approaches, and projects that foster a practice of enspirited equality. Involving a diverse range of individuals in both the planning and practices of a local food system can regenerate the system's shared material boundary based on criteria other than

monetary exchange. In Auroville, for example, such continual discussion will be needed to attempt to bridge the socioeconomic divide to nearby villages. This will also be an important issue in the Twin Cities as activists attempt to erode the original elitist tilt of their own local foods movement. These conversations will not be easy and they will not have clear answers. But, as Hassanein (2003) contends, food democracy fosters discussions such as these and can thus be seen as “a *method* for making choices when values and interest come into conflict and when the consequences of decisions are uncertain” (p. 83). Food democracy and other forms of internal dialogue, then, provide a useful tool to generate change in the material socioeconomic boundaries of local foods systems in a way consistent with its underlying values and identity.

Self-Perpetuation: Systemic Evolution towards Sustainability

The final criterion for defining an autopoietic system is that the system must be self-perpetuating – that its self-generation and transformation *over time* remains consistent with its identity. Essentially, this means that the system undergoes continual structural change in response to external environmental influences but retain their same core identity or end goals. Self-perpetuation thus refers to the idea that actors, connections, and practices in a system evolve over time. This type of fluidity and change can allow systems to become better adapted to their environment while retaining the same vision. For local foods movements specifically, this means that actors or practices may change over time – and new connections may be formed within existing food system networks – but that end goals of sustainability remains the same. This continual evolution of local foods systems means that as they engage with their environment over extended periods of time they can come closer to cultivating a holistic sustainability in practice at multiple scales. I suggest that self-perpetuation can occur through two different pathways: (1) increasing translocal connections between local foods systems and (2) the use of conflict among translocal actors to challenge commonly held assumptions.

According to several notable scholars, translocal connections can play a valuable role by instigating sustainable change over time in self-perpetuating local foods systems (Capra 2003; Esteva & Prakesh 1998; Hassanein 2003; Wheatley & Frieze 2008). In the previous chapter, I used Harvey's (1990) work to emphasize the importance of place-based politics that celebrate both the particularity of place and the influence of outside forces. This approach, termed "rooted translocalism" (Katz 2001, p. 724), is "a geographical politics that proactively weds agendas in one place to those in myriad others" (Castree 2004, p. 135). Such a practice enables local foods systems to evolve in a way which incorporates diversity-receptive localism and transcends the local trap. In light of autopoietic theory, rooted translocalism can be seen as a way for systems to self-perpetuate and reflexively transform based both on the system's core identity and its exposure to diverse ideas present in the greater environment. Southern Africa, as the most developed case of translocal networks explored in this thesis, aptly illustrates this point. In addition to intra-regional connections, international connection through The Berkana Exchange continually pushes local foods movements in Southern Africa to consider their vision in conjunction with the goals of numerous other local foods movements around the world.

Over time, translocal connections provide external stimuli that can induce change within living systems, as long as this change is consistent with the system's original identity. This type of adaptation is labeled by Capra (1996) as structural coupling. He says, "structural changes in a living system are changes in which *new structures are created – new connections in the autopoietic network*" (emphasis added) (Capra 1996, p. 219). As a local foods system develops increasing translocal connections it effectively changes its structure – by remaining physically rooted in one place but also connected and aware at a broader geographical scale. As translocal connections form between local foods movements, they can enable each system to function more

reflexively and sustainably at both local and global scales. Essentially, feedback from other locales can assist local foods systems to become more sustainable – both based on factors within their own community and based on their impact on other locales. This continual transformation based on translocal influences means that local foods systems can evolve to be imbued with a more reflexive approach to ecological, social, economic, and spiritual sustainability with concerted effort over time.

In practice, the processes by which communities can develop more sustainable agricultural systems are fluid and contextual. Capra (1996) notes that: “a structurally coupled system is a learning system. As long as it remains alive a living system will couple structurally to its environment” (p. 219). This indicates that the means by which communities develop more sustainable food systems will be adaptable to their particular environments – both local and global – and will reflect changes in these environments over time. Translocal connections will help to catalyze such sustainable adaptation and change. These relationships can provide necessary feedback, inspiration, and resources to support various local foods systems to become self-perpetuating over a wide range of geographical scales. Self-perpetuation ultimately enables local foods systems to transform over time both to better meet end goals of sustainability and to more reflexively interact in a world characterized by complex translocal interactions.

Translocal connections can also induce conflict that forces actors to challenge commonly held assumptions about approaches to sustainable change. In contrast to self-perpetuation that occurs through positive feedback, conflict produces change through negative feedback loops. Scholar Saul Alinsky (1972) notes: “Change means movement. Movement means friction. Only in the frictionless vacuum of a nonexistent abstract world can movement or change occur without that abrasive friction of conflict” (p. 21). Thus new voices and new approaches to sustainable

food system development must be continually sought out to challenge established norms both within mainstream agriculture and within local food systems themselves (Carnes and Karsten 2003; DuPuis & Goodman 2005; Hassanein 2003; Hinrichs 2003). Often this means engaging in dialogue with individuals who hold different values, as Carnes and Karsten (2003) document, or with those working for change in different locales. When a diverse range of actors come into dialogue with one another, they are able to question each others' mindsets and provoke one another to reconceptualize approaches to sustainability. Likewise, when individuals encounter difference or diversity with respect, they are able to let go of a single, small way of knowing and acknowledge the presence of other realities. This practice enables actors to stretch their minds and worldviews and – in DuPuis and Goodman's (2005) words – to embrace a more reflexive localism. This approach can provide a way to navigate complex ethical and moral territory.

Indeed, Hassanein (2003) notes that:

Actors in social movements often articulate ideas that challenge not only established arrangements but also the ideas of others in the movement. This ongoing struggle to integrate goals, beliefs and strategies *within movements* is part of the process of social change. (p. 81)

Thus conflict introduced through translocal connections enables local foods systems to continually adapt their practices to become more efficient and better adapted to their environment. In other words, conflict enables grassroots social systems to self-perpetuate themselves in a way that reflects their end goals of holistic sustainability. The Southern Africa regional exchange, for one, has been able to use dialogue, conflict, and exchange to general innovative practices, as will be discussed in the next chapter. Similar practices could additionally catalyze important shifts in Auroville and the Twin Cities – another topic I will address in Chapter 5. Ultimately, this process of self-perpetuating dialogue allows social systems to critically examine issues of meaning and value and ensure that they do not make “blanket

assumptions” or “uncritically adopt practices” that could prove detrimental over time (Born & Purcell 2006, pp. 203, 200).

Conclusion

In this chapter, I have attempted to reconceptualize local foods movements by viewing them through a living systems perspective as autopoietic systems. I believe that this provides a unique perspective on the strengths local foods systems possess and the challenges they face as they attempt to affect social change. Furthermore, this analysis provides a critical understanding of how these systems grow and change in order to meet their ultimate goal of sustainability. While the geographical perspective introduced in Chapter 3 identified crucial issues local foods movements must address in theory, a living systems perspective provides a way to understand how local foods movements can transcend these criticisms by continually developing new means to move toward a more holistic sustainability. In the next chapter, I will continue to develop the ideas introduced at the end of this chapter regarding translocality – and the argument that sustainable change can occur by concerted working to increase diversity through developing critical connections. As I will discuss in detail there, networking *among* local foods systems is equally important to networking *within* local foods systems. Thus, Chapter 5 serves to analyze the power of translocal networking to affect transformative global change in agricultural systems through both living systems perspective and Wheatley and Frieze’s (2008) “lifecycle of emergence” (p. 1).

Chapter Five – Creating Transformative Social Change

Introduction

In this final chapter, I return to two questions I posed at the beginning of this paper: How can the theoretical concept and practice of translocality help grassroots social movements to avoid being caught within the local trap (Born & Purcell 2006)? How can a translocal approach to grassroots social movements serve to catalyze transformative social change? Whereas Chapter 4 looked at how change occurs *within* local foods systems, this chapter will investigate how translocal connections *among* local foods systems can cause local and global social change. In order to answer these questions I draw from both living systems theory – introduced in the previous chapter – and Wheatley and Frieze’s (2008) work on translocality in an attempt to develop a natural model of transformative change that can be applied to local foods movements and other human systems.

The Power and Limitations of Autopoietic Local Systems

Local foods movements, as conceptualized through living systems theory in Chapter 4, are independently evolving human systems that have emerged as an alternative to the mainstream agricultural production system. The work of geographical theorists introduced earlier in this paper provides a different perspective, explicating the theoretical limitations of local systems – particularly their tendency to promote practices of defensive localism (DuPuis & Goodman 2005) or unreflexive localism (Hinrichs 2003). Let me highlight the critical points that each of these two perspectives brings to a study of local foods movements.

Living human systems, as conceptualized through living systems theory, have the capability to define their own boundaries and generate themselves based on their identity. Local foods systems, as living systems, create solidarity based on a common identity constructed by shared beliefs and practices in sustainability. In this way, they are able to assume a coherent

group identity (Castree 2004) that reflects the distinct combination of local and global elements (Massey 1999) present in each locale. This independently constructed identity allows local autopoietic systems to evolve and change outside the mainstream system and to introduce an entirely new range of living and being. As Aerin Dunford (2008) articulates it, living social systems exist “not to change the dominant system, but in order to live the worlds [they] want *today*” (Dunford 2008, p.16). Such powerful characteristics of autonomous local systems lead Wendell Berry (1977) to profess that: “If change is to come ... it will have to come from the outside. It will have to come from the margins” (p. 174). Berry’s belief that social change must come through *alternative* social movements that create an independent identity rather than through *oppositional* social movements that develop in contrast to an antagonistic target resonates with the work of many grassroots scholars (Dunford 2008; Escobar 2001; Esteva & Prakash 1998). As he declares, “it is the overwhelming tendency of our time to assume that a big problem calls for a big solution. I do not believe in the efficacy of big solutions” (Berry 1977, p. 218). Instead, as Berry and others note (Dunford 2008; Escobar 2001; Esteva & Prakesh 1998; Wheatley & Frieze 2008) the creativity and innovation of small, local living systems allows for the natural emergence of change that can nonetheless challenge the big problems of our times.

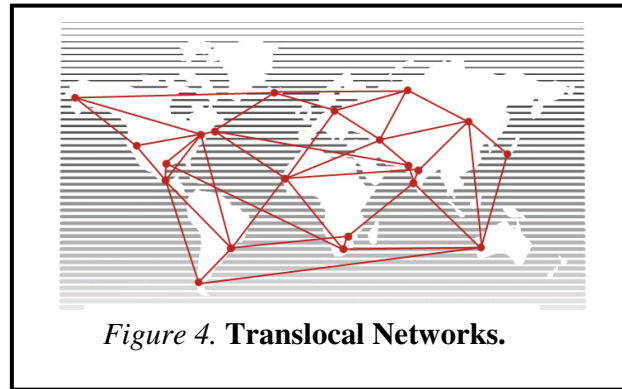
The power of local human systems to create meaningful social change is clearly a factor that cannot be neglected in a study of local foods movements. However, the work of geographical theorists pointing to the constraints and potential consequences of a solely local approach likewise cannot be overlooked. Critiques of local foods movements highlight their exclusive focus on local change and their tendency to ignore the broader regional or global implications of localization efforts (Born & Purcell 2006, Castree 2004, DuPois & Goodman 2005, Hinrichs 2003). Such movements can unintentionally replicate models of elitism,

isolationism, and nativism, as illustrated by the Auroville, Twin Cities, and Southern Africa case studies. Thus I ask: What is the relevance of the inherent power and limitations of local foods systems? Can we develop ideas of translocality and living systems theory to create a theoretical framework for social change?

I propose that a rooted translocalism (Katz 2003) allows local foods systems to at once retain their strength as grassroots peoples' movements and overcome the challenges of the local trap. According to some, when local movements can connect to form *translocal* movements, they “[transcend] a simple notion of hierarchical scales from global to local to body and [enable] us to think of locales by stretching relations over space” (Latham in Dunford 2008, p. 8). This reflexive geographical approach enables “multi-scalar solidarities” (Castree 2004, p. 159) to form and encourages “place-based, rather than place-bound political projects” (Castree 2004, p. 147). In this way, translocal connections open local movements to outside perspectives and enable them to conceptualize the implications of actions at various scales and in different locales.

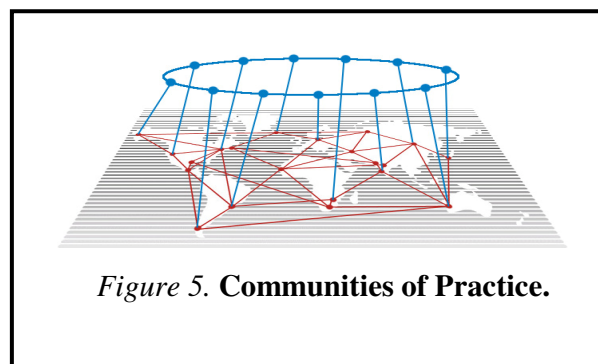
Wheatley and Frieze take the implications of translocal movements one step further and propose “using emergence to take social innovation to scale” (p. 1). In their view, translocality is not only essential for avoiding the local trap but also a crucial prerequisite for creating transformative social change. I have previously drawn on Born and Purcell’s analysis to suggest that translocality offers a scalar means to avoid isolationism and elitism in local movements. This chapter supports prior analysis, but draws on Chapter 4 to further contend that translocal networking offers a powerful way to create transformative global social change. “Change,” in Wheatley and Frieze’s words, “begins as local actions spring up simultaneously in many different areas. If these changes remain disconnected, nothing happens beyond each locale. However, when they become connected, local actions can emerge as a powerful system with

influence at a ... global ... level” (p. 3). They name a three-stage process in which local systems can connect at a translocal level to create radical change. In the first stage, *networks* forms between individuals or groups in various locales that share common values or purpose (*Figure 4*).^{xxii}



The emergence of these multi-scalar networks reflects Capra’s (1996) view that: “All living systems are networks of smaller components, and the web of life as a whole is a multilayered structure of living systems resting within other living systems, networks within networks” (p. 209). The emergence of networks at larger scales of organization simply reflects the emergence of new scalar connections and therefore follows the characteristics of living systems discussed previously. Moreover, as Wheatley and Frieze note, these fluid networks allow individuals to find like-minded others who can help to support and develop one another’s work in more diverse contexts.

In the second state of Wheatley and Frieze’s lifecycle of emergence, *communities of practice* form as translocal network members make a commitment to develop new practices together (*Figure 5*).^{xxiii}



This represents a significant development from the network stage in that community members agree both to support one another and to advance their common work – for example, sustainable local food production. This stage represents a concerted effort to build new forms of living and being together. In this way, the community begins to coalesce as a living system at broader scales by defining its own boundaries, and beginning to self-perpetuate itself.

The third stage of this process, or *systems of influence*, occurs when the new practices developed and nourished within communities of practice suddenly become the norm (Figure 6).^{xxiv} These practices, which were once relegated to the margins of society, suddenly become widely embraced and practiced throughout the world.

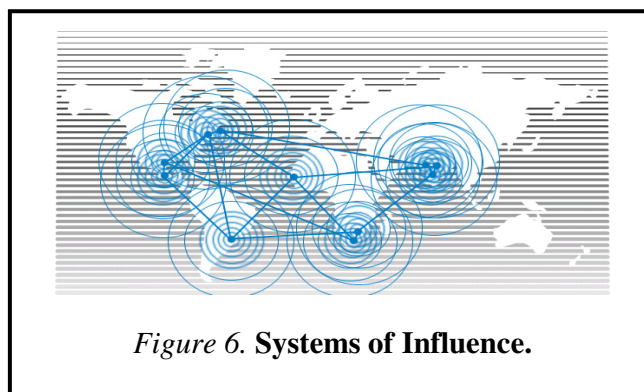


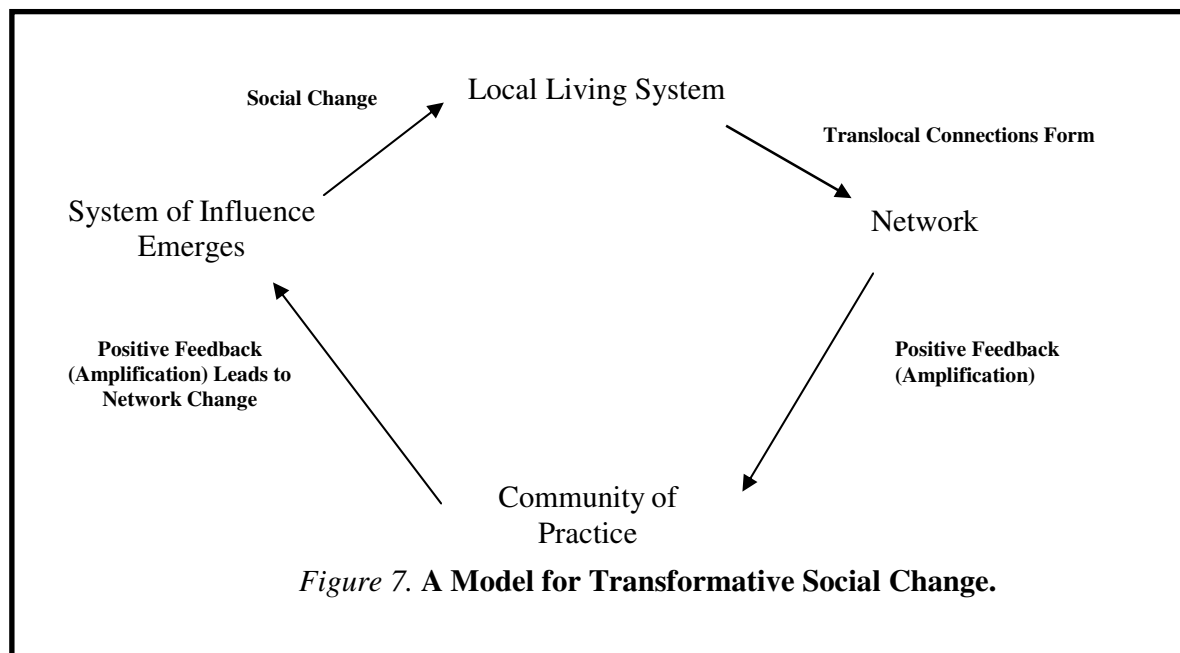
Figure 6. Systems of Influence.

In other words, the translocal system is able to create transformative social change. According to Wheatley and Frieze (2008),

This system of influence possesses qualities and capacities that were unknown in the individual [components]. It isn't that they were hidden; they simply don't exist until the system emerges. And the system that emerges always possesses greater power and influence than is possible through planned, incremental change. *Emergence is how life creates radical change and takes things to scale.* (Emphasis added) (p. 1)

This complete transformation results from intentional translocal connections that both enable localities to avoid defensive or unreflexive practices (Dupois & Goodman 2005Hinrichs 2003) and support them to develop powerful new ways of living within global systems. Wheatley and

Frieze's theoretical explication of how translocal connections create global social change has strong ties to living systems theory. The analysis I use in this chapter examines local foods systems at a broader scale – examining connections *among* local systems rather than *within* them – to discern how living human systems emerge and change at global levels. Thus, drawing on my characterization of local foods systems as living autopoietic systems and Wheatley and Frieze's work, I attempt to develop a theoretical framework that delineates how local foods movements can create global social change towards sustainable food systems. The schematic below visually illustrates the pathway that I describe in the following pages (*Figure 7*).



Towards a Living Systems Model of Transformative Social Change

Networks: the first stage

As discussed previously, local foods movements and other grassroots social movements often exist at the margins of society, pioneering new approaches to sustainability that have not begun to enter the mainstream consciousness. This positionality of grassroots movements provides them with great potential (Berry 1977, Escobar 2001, Esteva & Prakash 1998), but also

means that they often lack support and face difficulties in moving towards their goals. In light of this, the translocal network offers a unique form of support to alternative social movements that exist at the periphery of mainstream culture. It catalyzes change by both: (1) developing a more reflexive localism, and (2) providing the space for grassroots sustainable agriculture movements to support one another. These translocal networks can have incredible impact at both local and global levels. As one leader of a sustainable agriculture demonstration center reflects, “a network of learning centers [local organizations] inspires the ability to dream” (Cahi in Dunford 2008, p. 31). When local movements that share common values and goals around sustainable food production become part of a translocal network, they are able to both see sustainable food systems implemented in diverse locales and receive feedback on their own practices and projects. Cahi says, “It’s the recognition that it can happen in more than one place – especially in places where there are difficulties of whatever sort – getting away from that allows you to look at your own place with a different kind of wisdom and fresh eyes as well. It gives a two way perspective – a mirror” (In Dunford 2008, p. 31). The network stage thus provides the grounds for a distinctively *reflexive* localism – it provides local initiatives with translocal perspective on their local work and helps them to understand the implications of their actions at a global level.

In addition to fostering a more reflexive localism, the network extends the boundary of the local living system defined by common values of sustainable food production. In this way, translocal networks provide a means to create living systems at regional and global levels that support the autopoietic self-generation and self-perpetuation of the individual, local components. Wheatley (1999) observes that: “If a system is in trouble, it can be restored to health by connecting it to more of itself. To make a system stronger, we need to create stronger relationships” (p. 145). If a local foods system is suffering – whether because of insufficient

support or because of an inability to escape the local trap of unreflexive decision making – it must develop more connections either *within* its locality or *among* itself and other localities to restore its health. As we saw in Chapter 3, increased connections within a locality can help to temper charges of elitism – such as in Auroville and the Twin Cities (Castree 2004; Watts 2000)– while building relationships among localities can assist in developing a more reflexive localism – as in the Southern Africa case (Harvey 1990). Chapter 4 furthermore demonstrated that increased network connections can: (1) Encourage translocal exchanges that allow the system to become more sustainable, and (2) Create conflict that fosters systemic innovation. In order to reflexively evolve, local foods systems must learn more about sustainable agricultural practices from other local foods systems, allowing the entire translocal network to grow and change together. When different locales interact in this manner, they develop a complex system of communicative feedback loops that encourage practices that are both locally and globally sustainable. The emergence of feedback within the network thus provides a foundation for translocal social change.

The three case studies introduced in Chapter 3 practically exemplify the importance of such translocal networking. Although I previously discussed the importance of translocality in each case, here I highlight four networks specifically suited to illustrating Wheatley and Frieze’s theoretical model. Auroville’s participation in the Global Ecovillage Network (GEN), for one, facilitates a reflexive localism by uniting ecovillages around the world in a translocal learning network. This ecovillage network is, according to GEN (2008), “a global confederation of people and communities that meet and share their ideas, exchange technologies, develop cultural and educational exchanges, “ and dedicate themselves to living sustainably (p. 1). The ecovillage network allows participant ecovillages to exchange ideas and resources as well as to develop a

more reflexive approach to local foods systems and sustainable agriculture. GEN is a typical stage one network, as described by Wheatley and Frieze, characterized by connections between people with similar values and by fluid boundaries.

The Twin Cities, although the weakest case study of translocality, also evidences translocal networks formed by Internet networking. These networks range from Slow Food International (2009) to Eat Local America (2009) and serve to connect producers and consumers that share a common vision of sustainability. Individuals and groups with a commitment to eating locally and sustainably can join these networks as a way to gain information, resources, and support. Although Eat Local America exists only within the United States, Slow Food International provides a network that connects to sustainable agriculture movements around the world. Interestingly, both these translocal networks primarily target individuals – rather than organizations or communities – a fact which sets them apart from both Auroville’s GEN and Southern Africa’s Berkana Exchange, described below. Regardless, both Slow Food International and Eat Local America exemplify local work towards food sustainability that is nourished through open membership Internet networks – again illustrating Wheatley and Frieze’s first stage in the lifecycle of emergence.

Southern Africa presents examples of both regional translocal networking – between Johannesburg, Cape Town, Durban, and Harare – and global translocal networking within the extended Berkana Exchange. The Berkana translocal network supports local initiatives by: “connect[ing] pioneering leaders throughout the globe around their shared commitment to making a difference in and beyond their communities” (The Berkana Exchange 2009). Furthermore, its mission to discover “what happens when the learning does not get lost” but instead “moves openly and fluidly around the globe,” (The Berkana Exchange 2009) closely

mirrors what Wheatley and Frieze identify as fundamental characteristics of the translocal network. Cahi (In Dunford 2008) observes the potential inherent to translocal networks such as those described above, saying: “Bringing us together gives a transformative possibility” (p. 31). This initial networking provides the grounds for the second stage within the lifecycle of emergence: communities of practice.

Communities of practice: the second stage

The formation of communities of practice is characterized by several characteristics, including: self-organization around shared practices and values, common commitment to support translocal community members, and a desire to share emergent innovations with a wider audience. While networks exhibit fluid membership and boundaries, communities of practice members demonstrate conscious commitment to one another and to the community as a whole. The communities of practice stage represents a strengthening of the characteristics found at the network stage. However, it is also distinguished by a deeper understanding of the subtle distinction between the local nodes and the translocal network. According to Wheatley (1999), we must “explore the relationship between the part and the whole, but not confuse them as identical or interchangeable” (p. 142). Properties emerge within the broader translocal community of practice – such as feedback loops amplifying the practice of common sustainable techniques between locales – that do not exist within individual local foods movements. Conversely, characteristics that reflect specific ecological or human aspects of each locale do not apply to the translocal community.

As indicated in Chapter 4, parts of the living local foods system continually self-generate and self-perpetuate; thus the translocal community of practice concurrently changes both as its constituent parts change and as the relationship between these parts change. In Wheatley’s (1999) words,

Individual behaviors co-evolve as individuals interact with system dynamics. ... [W]e have to use what is going on with the whole system to understand individual behavior, and we have to inquire into individual behavior to learn about the whole. (p. 142)

In other words, we must not fall victim to the global-local scalar binary (Massey 1999), but rather endeavor to understand the complex interrelations within the local system, between the local and translocal systems, and within the translocal system. To do this, “[w]e hold our attention at two levels simultaneously. ... We can understand the whole by noting how it is influences things at the local level” (Wheatley 1999, p. 141). By beginning to understand the nested levels of living systems, we can gain insight into how these systems grow and change. What does this mean in terms of local foods movements? I draw on the three case studies introduced previously to practically illustrate emerging translocal communities of practice.

Auroville, as mentioned previously, participates in the translocal Global Ecovillages Network. Concerted organization between GEN members has induced the formation of several smaller communities of practice including Living and Learning Centres, GAIA Education, and GAIA Consulting Group (GEN 2008). Although each of these initiatives serves as an excellent community of practice model, in this paper I draw examples solely from the Living and Learning Centres. Living and Learning Centres, as defined by GEN, exist in select ecovillages and serve as community-based demonstration centers that teach about sustainable living. Auroville (India), Crystal Waters (Australia), the Ecovillage Training Center (USA), Findhorn (Scotland), Sarvodaya (Sri Lanka), IPEC (Brazil), and EcoYoff (Senegal) – as particularly well established and well known ecovillages – make up this community of practice. This community therefore represents a microcosm of the broader GEN community focused on cultivating and spreading principles of sustainable living and sustainable food production.

In their lifecycle of emergence, Wheatley and Frieze (2008) note that communities of practice exhibit an intentional commitment to advance their common work and to share their discoveries with others (pp. 5-6). Based on this definition, Snyder's (2009) analysis qualifies GEN's Living and Learning Centres as communities of practice, observing their goal to: "create a learning web of shared resources in an evolving, collaborative system of experience, education and research to develop sustainable systems on the ground around the world" (p. 1). GEN's goal to share these discoveries with a wider audience is clearly illustrated by their slogan: "see it, do it, share it with others, and recreate something new" (Living and Learning Centres 2009). As a Community of Practice, the Living and Learning Centres project transcends scalar isolationism to be simultaneously local and global. As several observers put it, the Living and Learning Centres initiative has developed based on a common desire to both "develop sustainable systems on the ground" (Snyder 2009, p. 1) and act as "planetary ... catalysts for change" (Living and Learning Centres 2009). GEN's observations about the power of this community of practice strikingly mirror Wheatley and Frieze's commentary creating social change through networks, communities of practice, and systems of influence. GEN advocates this approach to social transformation "because what works in one part of the world often works in another; because it's not about reinventing the wheel, but creating effective new ways of working together; because the challenges ahead of us require real cooperation, fast action, and deep insights" (Living and Learning Centres 2009). This stress on translocal approaches to developing sustainable practices, building relationships, and working together to surmount the current global ecological, social, and economic crises – a deliberate approach to social change creation – deeply resonates with Wheatley and Frieze's work to define communities of practice as part of a more extensive pathway towards social change.

The Twin Cities, although significantly less translocally connected than my two other case studies, does illustrate connections to developing communities of practice. As mentioned previously, Twin Cities producers and consumers participate in two translocal networks: the Eat Local Co-op Campaign and Slow Food International. Although the Eat Local Campaign has yet to develop more intentional communities of practice, Slow Food International illustrates several, including: Slow Food in Schools, Slow Food on Campus, and the University of Gastronomic Sciences (Slow Food International 2009). Slow Food on Campus, just as GEN's Living and Learning Centres in the Auroville case, presents a community of practice. Slow Food on Campus represents a "smaller, individuated communit[y]" of fifteen universities^{xxv} that have emerged from the broader Slow Food International community (Slow Food on Campus 2009). This community of practice is oriented around the singular goal of creating a "good, clean, and fair food system" at member universities and in their surrounding communities (Slow Food on Campus 2009). Students participating in this endeavor support one another and also find translocal assistance in the form of the broader Slow Foods International network. Moreover, as Wheatley and Frieze (2008) note, "the focus extends beyond the needs of the group" as Slow Foods on Campus participants seek to develop more sustainable food production systems both within their respective universities and within their broader local communities (p. 5). The ties between specific actors in the Twin Cities and this fledgling community of practice are not as evident as those in the cases of Auroville and Southern Africa. However, this initiative does illustrate a community of practice – Slow Foods on Campus – that has formed out of a translocal network – Slow Foods International – and that many actors within the Twin Cities food production system participate within. Clearly, as noted in Chapter 3, translocality is one aspect of the Twin Cities local foods movement that needs continual focus. However, as can be seen by

the examples of Slow Foods International and Slow Foods on Campus, the seeds of translocal change have been planted in the Twin Cities and throughout the United States.

Southern Africa, as explicated in previous Chapters, is an extremely powerful example of translocal social networking and change. Berkana's translocal network of learning centers has presented a powerful avenue for communities of practice to emerge. These communities of practice include work around: "Media, Arts, and Culture," "Beyond Schooling," "Business We Believe In," "Ecobuilding and Upcycling," "Feeding Ourselves Sustainably," "Health and Healing," and "Youth Leading" (The Berkana Exchange 2009). Here, I focus on the "Feeding Ourselves Sustainably" (The Berkana Exchange 2009) community of practice as it relates to Wheatley and Frieze's work. This community of practice includes several pioneering centers from around the world including those in the Southern Africa regional exchange as well as Shikshantar (India), the Shire (Canada), Santropol Roulant (Canada), and TLC Farm (USA). Similar to the GEN Living and Learning Community of Practice, the Berkana Feeding Ourselves Sustainably Community reflexively acknowledges the current state of global agricultural crisis and attempts to "explor[e] the leadership practices our communities need to maintain a sustainable food supply" (Feeding Ourselves Sustainably 2009). To do this, the community is attempting to develop various forms of permaculture and natural farming, rainwater harvesting, vertical and rooftop agriculture, solar ovens, and composting toilets (Feeding Ourselves Sustainably 2009).

In this community of practice, innovations and developments spread rapidly between the participating centers – a crucial factor according to Wheatley and Frieze. Center leaders meet face-to-face each year through the Berkana Exchange's Art of Learning Centering gathering. This event, in addition to continual Internet and telephone communications, allows the local

centers an opportunity to share insights, develop agricultural practices together, and to build a common vision of sustainability from diverse perspectives. Furthermore, this community of practice is attempting to develop “training and demonstration centers where local community members and other organization might meet to learn these [sustainable agriculture] practices and share their innovations” (Feeding Ourselves Sustainably 2009). Yet again it becomes evident that members of communities of practice commit both to one another and to others that share common values around sustainability. These connections – both within the community of practice and to those outside – are a central characteristic of communities of practice and will be critical to developing sustainable agriculture in translocally linked locales around the world. In addition to their role enabling local foods systems to evolve in response to both local and translocal stimuli, communities of practice also have the potential to transform into what Wheatley and Frieze term systems of influence.

Systems of influence and the creation of social change: the third stage

Wheatley and Frieze propose that as communities of practice evolve into systems of influence they have the potential to create transformative change. Thus I ask: How do systems of influence and social change actually emerge? Living systems theory offers a powerful lens to address this question, by translating the phenomenon of emergent properties – the idea that the whole represents more than the sum of its parts – from biology to social systems. The discussion of emergence draws from three critical ideas of new paradigm science, namely: (1) relationships and interconnection between parts are more important than the individual components themselves, (2) living systems are characterized by non-linearity and unpredictability, and (3) systems evolve and change in a manner that is consistent with their core identity. These new paradigm ideas, as I stressed in Chapters 1 and 2, emerge in contrast to old paradigm ideas of reductionism, predictable linear models of cause and effect, and mechanistic systems.

In the new paradigm living systems model, even small local changes in lifestyle and food production methods can lead to transformative change in global systems when amplified through translocal connections. As Wheatley (1999) contends, “each small act or new way of behaving occur[s] within a whole fabric” (p. 44). A small change at the local level can thus set off a chain reaction of subsequent effects based on its position within the entire translocal network. And, “because it is impossible to ever know everything about the whole, it is impossible to ever predict exactly where or when influences will manifest” (Wheatley 1999, p. 44).

In the nonlinear world described by living systems theory and new paradigm science there is no predictable cause-effect relationship; simple changes in daily lifestyles around the world can be amplified through learning networks to create entirely new attitudes toward food production. Conversely, major shifts made by large-scale companies can remain contained within a locality. For example, the vertical gardening techniques cultivated at GreenHouse Project have quickly adapted and spread to diverse locales through positive feedback loops within translocal networks. In contrast, the introduction of Genetically Modified Organisms (GMOs) by agribusinesses in the United States has been explicitly rejected by activists and communities within the European Union; this negative feedback has provided an effective barrier despite the interests of large agribusinesses. Wheatley (1999) observes that: “The capacity of a network to communicate with itself is truly awe inspiring; its transmission capability far surpasses any other mode of communication. But a living network will transmit *only what it decides is meaningful*” (p. 151). Thus the ideas and changes that spread throughout a translocal system of sustainable food production will only be those that reflect the identity of the system itself – one that is grounded in a common vision of holistic sustainability, as discussed in Chapter 4.

According to living systems theory, then, “[change is] never a question of ‘critical mass.’ It’s always about *critical connections*” (Wheatley 1999, p. 45). The key to social change is continually and proactively forming relationships with like-minded others and allowing these relationships to evolve and change naturally as part of a living human system. Wheatley (1999) describes this phenomenon of new paradigm social change beautifully:

Nothing described by Newtonian physics has prepared us to work with the behavior of living networks. We were taught that change occurs in increments, one person at a time. We not only had to design the steps; we also had to take into account the size of the change object. The force of our efforts had to equal the weight of what we were attempting to change. But now we know something different. We’re working with networks, not billiard balls. We don’t have to push and pull a system, or bully it to change; we have to participate with colleagues in discovering what’s important to us. Then we feed that into our different networks to see if our networks agree. ... [T]he work of change is always the same. (p. 152)

Transformative global change in food production systems can emerge from simple actions taken by individuals and by local foods systems *as long as they are deeply and translocally connected with like-minded others*. This assertion mirrors the work of geographical place theorists introduced in Chapters 1 and 3 and underscores the importance of networks, dynamic glocal development, and translocality. In addition to supporting members, translocal connections bring diversity and conflict into sustainable agriculture movements; they challenge each locality to develop food systems that are both locally adapted and globally appropriate. As translocal connections evolve from networks to communities of practice to systems of influence, they also exhibit the characteristics of living systems discussed in Chapter 4. For these translocal communities, in addition to their constituent local food systems, are living systems that self-generate, self-perpetuate, and establish their own boundaries. In short then, connections *among* local foods systems must mirror the connections *within* local foods systems as they grow and evolve over time.

Because we have yet to see a system of influence emerge from sustainable agricultural communities of practice, there is no way to predict what it will entail or precisely when it will come about. However, Wheatley and Frieze's lifecycle of emergence does provide a novel framework for catalyzing such transformative social change. Based on their work, the translocal networks and communities of practice we see emerging in Auroville, the Twin Cities, and Southern Africa indicate impending social change and transformation on a truly global scale. We cannot plan for this change. Rather, we must continue to work at our own pace in our communities and to forge connections with diverse others pursuing a common vision of sustainability. In Wheatley and Frieze's (2008) words, "As leaders and communities of concerned people, we need to intentionally work with emergence so that our efforts will result in a truly hopeful future. No matter what other change strategies we have learned or favored, emergence is the only way change really happens on this planet. And that is very good news" (p. 6).

Conclusion

In this chapter I have attempted to draw on living systems theory (Capra 1996; Capra 2003; Wheatley 1999) and the lifecycle of emergence (Wheatley & Frieze 2008) to develop a theoretical framework for local foods movements as a means to orchestrate global social change. While a translocal approach helps grassroots movements to theoretically transcend Born and Purcell's local trap, living systems theory provides a new lens through which to view change and transformation in human systems. In the proceeding pages I attempted to merge these two theoretical frameworks to develop a model by which local foods movements can create radical change in the mainstream food production system. Specifically, I applied Wheatley and Frieze's lifecycle of emergence to delineate a three-stage process of change in local foods systems that emphasized: (1) networks, (2) communities of practice, and (3) systems of influence. I argue that

the above pathway provides a critical means to reconceptualize local foods movements and to establish them as powerful means to affect global change towards sustainable food production systems.

Chapter Six – Conclusions

Throughout the course of this paper, I have attempted to show the power of local foods movements to facilitate social change in communities around the world. I began with the question: Can local foods movements create transformative change and build a foundation for holistic sustainability at the global level? This question provokes inquiry into the empirical and theoretical nature of local foods movements, the scalar legitimacy of grassroots social movements, and the means by which social change is accomplished. I furthermore suggest that it brings to light essential normative questions about our place in a world increasingly devastated by ecological, social, and economic crises.

In order to reflexively address my central question, I guided my research using an amalgam of three theoretical frameworks: (1) a geographical place-space framework that addressed the scalar complexities of grassroots social movements (Born & Purcell 2006; Castree 2004; Harvey 1990; Massey 199; Watts 1999; Watts 2000); (2) an empirical framework that endeavored to create a definition of local foods movements in theory and practice (Campbell 1997; Carnes & Karsten 2003; Feenstra 1997; Sonnino & Marsden 2006), and (3) a living systems framework that enabled me to discuss how sustainable change can occur within and among local foods movements (Capra 1996; Capra 2003; Wheatley 1999). As I engaged with these frameworks, I drew upon a diverse range of sources – including the primary literature, books, interviews, correspondences, and first-hand experience – to support my conclusions.

However, a carefully constructed theoretical framework and diverse array of sources alone would not have been sufficient to coherently answer my central research question. In order to structure my response, I posed specific questions in the five different chapters (*Figure 1*). Each chapter presented a specific contention in response to these queries that qualified different

aspects of my central argument – that local foods movement can affect transformative global social change (*Figure 2*). Let me briefly review the points made in each chapter.

To begin, the second chapter dealt with the questions: Why are local foods movements occurring in such large numbers *now*? Why have local *foods* movements in particular emerged as a popular response to consolidated global political and economic control? I argued that that the increasingly evident crises of industrial agriculture have led individuals and communities alike to question the mainstream system. I furthermore contended that food's association with identity and place-based communities spurred social mobilization around sustainable agriculture and local foods systems. This chapter concluded by identifying local foods movements as a type of new social movement able to engage mass popular support and imbued with the potential to catalyze transformative social change (Hassanein 2003).

In Chapter 3 I shifted my frame of reference, turning to an analysis of local foods movements as social movements with characteristic resources to draw from and obstacles to surmount. Here, I outlined the work of several prominent geographical theorists (Castree 2004; Harvey 1990; Massey 1999; Watts 1999; Watts 2000) to create a perspective from which to analyze three particular case studies of local foods movements. In my analyses of Auroville, India; the Twin Cities, United States; and Southern Africa I found that each local foods movement brought together a unique amalgamation of strengths and weaknesses. Auroville, for example, is more likely to fall prey to critiques of elitism and exclusion based on its sociopolitical boundaries as an ecovillage. The Twin Cities show increasing attempts to include consumers across the socioeconomic spectrum and to connect to similar movements translocally, but is still vulnerable to criticisms in these areas. In Southern Africa, local foods movements emerge as a truly grassroots phenomenon, but their development is constantly threatened by low

funding and tenuous political situations. In the end, all three case studies exhibited substantially different participant composition, development, and translocal networks. However, it was clear that despite their divergent innovations and obstacles each local foods network had the potential to facilitate social change towards more sustainable foods systems. The question thus became: How do local foods movements change to become more sustainable and affect transformative global social change?

In Chapter 4, I approached this difficult question using the living systems perspective advanced by Capra (1996; 2003), Pugliese (2001), and Wheatley (1999), among others. This chapter illustrated how local foods movements can be seen through autopoietic theory as living systems that are self-bounded, self-generating, and self-perpetuating. Specifically, it attempted to show how local foods movements can change *internally* to become more sustainable within their particular locales. Here, I argued that local foods movements can be said to share common values, or ideological boundaries, that stress holistic sustainability in food production, processing, distribution, and consumption. I then attempted to show how local foods movements could attempt to meet this common end goal through means of self-generative communication and dialogue. This approach, termed by Hassanein (2003) as food democracy, enables local foods movement participants to discern what sustainability means *in practice* in their particular locale. Finally, I showed that conflict and translocal connections enable local foods systems to perpetuate themselves and become increasingly sustainable over time. This novel approach to conceptualizing grassroots social movements allowed me to show how foods systems could affect change within their communities. However, the scalar considerations of unreflexive localism and the local trap raised by my geographical analysis in Chapters 1 and 3 could not be addressed solely by autopoietic systems analysis.

Thus Chapter 5 turned to an integration of living systems theory and Margaret Wheatley and Deborah Frieze's (2008) "Lifecycle of Emergence" (p. 1). This approach enabled me to construct a framework that exhibited how grassroots social movements can connect with one another to create global sustainable change (p. 1). Drawing from Wheatley and Frieze, I proposed a three-stage pathway comprised of: (1) networks, (2) communities of practice, and (3) systems of influence. As I articulated this framework, I drew examples from each of the three case studies introduced in Chapter 3 to tangibly show how emerging networks and communities of practice can begin to create social change. These examples from the case studies, in conjunction with Wheatley and Frieze's lifecycle of emergence, led me to contend that local foods movements will continue to emerge as powerful alternatives to contemporary industrial agriculture.

Ultimately after completing my analysis, I contend that local foods movements can create sustainable social change and serve as a model for similar grassroots social movements. This argument, however, is contingent on a conceptual understanding of local foods movements developed over the past five chapters that stresses their ability to: (1) develop naturally based on the unique conditions of each locality, (2) take into account the ecological, social, economic, and cultural implications of actions towards change, and (3) build translocal connections that enable receptivity to positive and negative feedback signals across a broad range of geographical scales. The analysis presented within this thesis, moreover, provides several critical contributions to the academic literature.

First, it offers a comprehensive literature review of the current definitions of local foods movements, the critiques of local foods movements, and the central role of food in catalyzing social mobilization. Due to the proliferation of scholarship on local foods movements over the

past ten years, this review of the extensive literature is a critical way to render it accessible to a broader audience.

Second, a geographical analysis of three case studies enables this paper to answer calls in the literature for empirical critiques of local foods movements (Born & Purcell 2006; Sonnino & Marsden 2006). Sonnino and Marsden (2006), for one, contend that: “the geographical and sociological literature on the development of ... [alternative food] networks remains highly fragmented and under-theorized” (p. 185). Born and Purcell (2006) additionally call for analyses of the role of scale in constructing existing local foods movements. My research contributes directly to these gaps in the literature, using geographical critiques of the role of place and scale in local foods movements to critically examine three case studies. The broad range of organizational scales at which these case studies operate and their geographical diversity enables me to contribute a wide variety of empirical data. Additionally, because studies of local foods movements in the literature typically focus on one case or two geographically similar cases, this paper provides needed comparative analysis of multiple case studies.

Third, I extensively engaged with Born and Purcell’s critique of the local trap, contributing to an extensive academic conversation about the most efficient means to produce sustainable food systems. I ultimately argued that the use of translocality in theory and practice answers Born and Purcell’s (2006) call for “a theoretical solution to the local trap” that includes “a skillful weaving of both scale theory and network theory” (p. 205). The exploration of translocality in this paper answers several criticisms of local foods movements in the literature. To start, it examines the “changing interrelationships among the various scales” rather than simply falling victim to the oversimplified binary of “global as hegemonic and oppressive and the local as radical and subversive” (Born & Purcell 2006, pp. 198, 200). Translocality, as

exhibited in the case studies, additionally allows us to tangibly see that “communities exist at all scales” and that actors are responsible to each of these communities for the effects of their actions towards food system sustainability.

The use of translocality also builds upon my initial definition of local foods movements to show the importance of holistic farming techniques, local purchasing venues, and socioeconomic sustainability, in addition to shorter food-miles. This multi-faceted perspective provides a practical way to support local foods movements to both become more reflexive and affect sustainable food system change. The paper thus illustrates how local foods movements can “move beyond buy-local campaigns to support the alternative agricultural system” by affecting sustainable social change across a wide range of scales (Born & Purcell 2006). Ultimately I draw from existing critiques of local movements in the literature (Born & Purcell 2006; DuPuis & Goodman 2005; Hinrichs 2003) to propose a theoretical solution – translocality – based on empirical evidence from three case studies. This analysis contributes to what Sonnino and Marsden (2006) identify as a vastly under-theorized area in the literature.

Fourth, the paper broadens the work done by Capra (1996; 2003), Fleischaker (1990), and Luhmann (1990) investigating the application of autopoietic theory to social systems. My analysis supported the work of these scholars, illustrating that autopoietic theory can contribute a conceptual framework for analyzing network organization. This new paradigm scientific approach provides a means to reconceptualize our understanding of how local foods systems grow and evolve. The use of autopoietic theory to explore self-boundary, self-generation, and self-perpetuation in local foods movements is previously undocumented in the literature. This paper therefore expands the application of autopoietic theory to social systems and provides a novel way to understand how sustainable change can occur in local foods systems.

Finally, this thesis fuses three theoretical frameworks – (1) definitions of local foods movements in theory and practice, (2) the local trap and geographical scalar theory, and (3) living systems theory – to generate transdisciplinary insight into local foods movements studies. In particular, the dual use of geographical scalar theory and living systems theory allows the paper to confront weaknesses typical of local foods movements *and* show how they could proactively change to become more sustainable in practice. Currently, there exist very few studies in the literature that develop a model to explicitly address criticisms of local foods movements. Thus, the use of academic inquiry that proactively addresses weaknesses of local foods systems supplements the existing body of research. Ultimately, this thesis contributes to the literature by endeavoring both to provide rigorous academic analysis of local foods movements and to foster action and change in the world.

Conclusion

In the end, the emergence of social change, as Wheatley and Frieze suggest, cannot be predicted or planned. Instead, it will emerge from concerted work occurring in distinct locales connected by translocal networks that facilitate human relationship, exchanges of resources, and mutual support. In order to affect transformative change we must continually fight for our values of sustainability, connection to local places, and relationships with others around the world. Change will not be accomplished by standing alone. Rather, to create social change we must engage together to cultivate a holistic local and global sustainability; we must declare our faith in a world that is at once beautifully resilient and in a state of complete crisis.

The Zapatistas of Mexico say *mandar obedeciendo* – lead by following. I have every confidence that as we humbly lead, follow, and work together, we can create sustainable change within vibrant local and global communities. This conviction has been influenced by the work of

a diverse range of scholars and grassroots activists who share my belief in the power of engaged grassroots participation. Thus, in closing, let me echo their words. They say,

Radical hope is the essence of popular movements. (Esteva & Prakesh 1998, p. 204)

The kind of hope that I often think about ... I understand above all as a state of mind, not a state of the world. Either we have hope within us or we don't; it is a dimension of the soul, and it's not essentially dependent on some particular observation of the world or estimate of the situation ... [Hope] is not the conviction that something will turn out well, but the certainty that something makes sense, regardless of how it turns out. (Havel 1990, p. 181)

Like all journeys, this one [towards social change] moves through both the dark and the light, the terrors of the unknown and the joys of deep recognition. (Wheatley 1999, p. 168)

The hope these scholars reference is not unfounded or unrealistic; instead it is deeply grounded in cognizance of each individual's power to affect change simply by being present and aware in the world.

In the context of work for change, the cultivation, preparation, and consumption of food emerge as meaningful, place-based forms of engagement within both our communities and our ecosystems. Michael Pollan (2006), for one, contends that: "the way we eat represents our most profound engagement with the natural world" (p. 10). Local foods movements thus provide a means to authentically engage with the critical ecological, social, political, and spiritual issues of our time. In this way, I submit that local foods movements emerge with great positionality and potential to affect sustainable change. As we engage in such grassroots social movements, we must be grounded in place while open and connected to the rest of the world. For, according Lynn Margulis and Dorian Sagan (1995), "Independence is a political, not a scientific, term" (p. 26). Instead of declaring independence, we must acknowledge our place within the intricate social, ecological, cultural, and spiritual relationships that give rise to our reality. It is perhaps

Fritjof Capra (2003) who best expresses my own belief in our ability to create meaningful social change. He says:

When we look at the world around us, we find that we are not thrown into chaos and randomness but are part of a great order, a grand symphony of life. Every molecule in our body was once a part of previous bodies – living or nonliving – and will be a part of future bodies. In this sense, our body will not die but will live on, again and again, because life lives on. We share not only life's molecules but also its basic principles of organization with the rest of the living world. ... We belong to the universe, we are at home in it, and this experience of belonging can make our lives profoundly meaningful. (Capra 2003, p. 60)

In the end, this is at once our inspiration, our model, and our means to create sustainable change.

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Endnotes

ⁱ Sustainability has become the key word in contemporary discussions of social change despite its vague definitions and connotations. In this paper, I draw from several scholars to define sustainability as living within our ecological, social, and economic means in a way that can be maintained over time (Capra 1996; Cavallaro & Dansero 1998; DeLind 2006; Pugliese 2001; Sonnino & Marsden 2006). This requires ecologically beneficial practices, social relations that promote equality, and an economic system in which individuals are able to receive a living income. Sustainability in local foods movements will be explored at length in Chapters 3, 4, and 5.

ⁱⁱ Various scholars label what I refer to as the local foods movements in different ways that will appear throughout this paper. They include: Alternative Food Networks (AFNs), Local Food Systems (LFSs), Sustainable Food Systems (SFSs), and Alternative Food Systems (AFSs).

ⁱⁱⁱ In this paper, glocalization refers to the processes that influence the formation of a *global* and *local*, or glocal, place. I follow Doreen Massey (1999) in defining glocal places as:
the sphere of juxtaposition, or co-existence, of distinct narratives, as the product of power-filled social relations ... This is place as open, porous hybrid ... where specificity (local uniqueness, a sense of place) derives not from some mythical inner roots nor from a history of relative isolation – now to be disrupted by globalization – but by the absolute particularity of the mixture of influences found together there. (pp. 21-22)

The role of glocalization in the development of sustainable local foods movements is stressed in Chapter 3.

^{iv} This paper employs the terms translocal and translocality to refer to local initiatives that are at once grounded in place and connected with other initiatives occurring in different locales around the world. This type of translocality is advanced by several scholars as a means to create a more reflexive localism and cultivate global social change (Castree 2004; Harvey 1990; DuPuis & Goodman 2005; Wheatley & Frieze 2008). I discuss translocality in Chapters 3, 4, and 5.

^v The old paradigm worldview, introduced in Chapter 1, provides an intriguing theoretical framing for a discussion of the mainstream industrial agriculture model. Let me draw a few parallels between the two that will be highlighted briefly in the text throughout this chapter. The worldview advanced by mainstream agricultural corporations, like that articulated by Newton and Descartes, ignores the fundamental interconnection of ecological, economic, and social systems. Instead, it relies on a simplified linear model in which one input produces a desired output with no adverse effects. This goal-oriented focus of industrial agriculture leads detrimental long-term effects to be ignored and labeled as externalities. In addition, the old paradigm view of the natural world as a mechanical creation subject to human control leads agribusinesses to perpetually propose technical fixes to problems, rather than creating solutions that address the underlying causes. These similarities begin to highlight the ideological similarities between old paradigm thought and contemporary industrial agriculture – a theme I will develop throughout this chapter with respect to industrial agricultural impacts on the economy, environment, local communities, and individual health.

^{vi} Currently, Americans spend \$117 billion per year on six health conditions: coronary heart disease, cancer, stroke, diabetes, hypertension and obesity (Morgan & Moreley 2001).

^{vii} As stated in Chapter 1, a scalar approach to local foods systems is undoubtedly important. However, I leave a full discussion of the implications of a scalar approach to local foods systems to later chapters.

^{viii} For a more detailed discussion of local foods movements as a type of new paradigm social movement, see Chapter 4.

^{ix} Many Auovillians would object to terming Auroville an ecovillage. Under the definition provided by the Global Ecovillages Network, ecovillages are identified based on their commitment to ecological sustainability alone. Although Auroville does share some characteristics with the typical ecovillage, it was not conceived as one, and not all who live there share the same commitment towards living sustainably. Many individuals focus on the spiritual, cultural, and social sustainability that are emphasized in Auroville's vision statement rather than ecological sustainability.

^x In addition to those farms producing for the local market, KOFPU and Naturellement food processing units are beginning to market their products to broader regional markets. Naturellement is also in the process of pursuing Fair Trade Certification.

^{xi} In part, local villagers cannot shop in Aurovillian stores due to cost. However, these stores often only accept Auroville “accounts” which are a form of alternative currency used in place of the rupee throughout Auroville. Only Aurovillians, Newcomers, and Guests are able to obtain these accounts.

^{xii} There do exist, however, educational, cultural, and social projects that transcend the divide between Auroville and nearby villages. These include Pichandikulam, Mohanam Cultural Center, and Lively Boutique, among others. However, due to the focus of this thesis on local foods movements, I do not address these other Aurovillian projects here. For more information see Auroville (2008).

^{xiii} Due to the high costs in many restaurants, Guests provide a crucial source of income and economic support for certain aspects of local food production in Auroville.

^{xiv} Avalanche Organics (Viola, WI), Breezy Hill Organic Orchard (Maple Lake, MN), Featherstone Fruits and Vegetables (Rushford, MN), Fireside Orchard & Garden (Northfield, MN), Gardens of Eagan (Farmington, MN), Harmony Valley Farm (Viroqua, WI), Highland Valley Farm (Bayfield, WI), Red Oaks Farm (Bayfield, WI), Rising Sun Farm (River Falls, WI), and Riverbend Farm (Delano, WI).

^{xv} Buffalo Gal Bison (Houston, MN), Dakota Lean Lamb (Hettinger, ND), Eichten’s Bison (Center City, MN), Hill and Vale Meats (Wykoff, MN), Pasture A’Plenty Meat and Poultry (Kerkhoven, MN), Star Prairie Trout (Star Prairie, WI), The Wedge Handmade Sausages (Minneapolis, MN), Thousand Hills Beef (Cannon Falls, MN), and Trebesch Premium Pork (Morgan, MN).

^{xvi} Bass Lake Cheese (Somerset, WI), CC Jersey Crème Yogurt (Spring Valley, WI), Cedar Summit Dairy Products (New Prague, MN), Helios Keifer (Sauk Center, MN), Larry Schultz Organic Farm (Owatonna, MN), Organic Valley Family of Farms (Lafarge, WI), PasureLand Cheese and Butter (Dodge Center, MN), Poplar Hill Goat Milk & Cheese (Scandia, MN), Shepherd’s Way Sheep Cheese (Nerstrand, MN), and Still Meadow Cheese (Crawford County, WI).

^{xvii} See www.localfoodnetworks.net, www.eatlocalchallenge.com, coop.eatlocal.org, www.ediblecommunities.com, www.slowfoodblog.org, www.eatwellguide.org, for just a few examples of this Internet networking potential.

^{xviii} The current political situation in Zimbabwe deserves mention to set the context for the work around local foods movements being done in Harare. Zimbabwe has been under the control of President Robert Mugabe since independence in 1980. However, in recent years, the Mugabe presidency has turned into an effective dictatorship backed by the military. Extensive corruption has led to economic and social crises – as exemplified by the forty million-fold rate of inflation documented in October 2008 (Dugger 2008). Currently the use of Zimbabwe dollars has been suspended and replaced with US dollars and the South African Rand until further notice (Dugger 2009). Within the past year some compromises have been reached with the opposition party, culminating in the induction of Morgan Tsvangirai as Prime Minister in February 2009. Tsvangirai’s influence as Prime Minister has yet to be seen, however at the time of publication of this paper it can be said that Zimbabwe is the midst of severe social, economic, and political crises. For more information on the situation in Zimbabwe, see Zimbabwe News (2009).

^{xix} Quoted in Wheatley (1999), p. 15.

^{xx} For academic analysis of the ecosystem or individual as autopoietic systems, see Capra (1996; 2003) and DeLind (2006), respectively.

^{xxi} For further discussion of the limitations of applying autopoietic theory to social networks – rather than carbon-based biochemical or ecological networks – see Luhmann (1990).

^{xxii} (Wheatley & Frieze 2008). Used with permission of the authors.

^{xxiii} (Wheatley & Frieze 2008). Used with permission of the authors.

^{xxiv} (Wheatley & Frieze 2008). Used with permission of the authors.

^{xxv} These fifteen Slow Food Universities include: Art Institute of Pittsburgh, Boston University, California Culinary Academy, Carleton College, Green Mountain College, Hampshire College, Harvard University, Kapi’olani

Community College, Le Cordon Bleu – Atlanta, Montpelier, Princeton, Rutgers, Sonoma State University, University of New Hampshire, and University of Wisconsin – Madison (Slow Food on Campus 2008).